THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXXII.—No. 4396. MAY 6, 1927.

CORPORATE INFLUENCE

MR. JOHN A. KNOWLES has recently been investigating the truth concerning the Mediæval Gilds, and his paper on the "Artistic Craft Gilds of the Middle Ages," published in the R.I.B.A. *Journal* of February 19, must have come as a shock to a good many architects and others who hold the conventional and convenient beliefs concerning artistic life during the Gothic period. Truth too often lies as an unseen sediment beneath a layer of invention and romance, and few can have read this paper without a feeling of disillusionment. When we wish to give a name to a group of artistically impelled workers, each working for a negligible remuneration in the cause of the art he loves, we call it "The ——— Guild," and are satisfied that we are relighting a candle that burned brightly during the Middle Ages. Mr. Knowles's researches indicate that our picture of mediæval artistic life is of our own manufacture, steeped in the romance and glamour due to the passage of time. The mediæval gild appears in reality to have been a trade union, run, when judged in comparison with modern standards, on decidedly inferior lines, where the masters ruled the roost and spent their ingenuity in preventing the workers from increasing their earnings. The municipalities were compelled to devote a good deal of time to framing regulations in order to prevent the gild members from cheating the public. Thus the municipality of York, for the public protection, had to enact that no stained glass above the value of half a mark (6s. 8d.) should leave the city until it had been inspected, to see that "therein be noo descyt unto the King's peple." Religion was, it appears, too often merely a pretext used by the masters to squeeze the public and by the men to try to increase their wages.

This exposure of the methods of the Middle Ages is perhaps, a wholesome corrective to our present-day pessimism, but it only intensifies the mystery of mediæval corporate achievement in architecture. The fabric account rolls of cathedrals show that all the more refined work was executed, not by gilds, but by independent workers and craftsmen living in the towns, owning their own shops, and employing their own apprentices, who gave a price, did the work, and sent and fixed it exactly as we do to-day. The gilds apparently no more traded for profit than does the R.I.B.A., and consequently there could have been no such thing as "participation in a division of profits"—a conception that is now almost universally accepted. But if the curren beliefs concerning the gilds and their homely artistic zeal bear little relation to fact, they represent, at least, a high ideal on our part, and if they could be put into practice to-day on a large scale, and combined with a corporate appreciation of architectural significance, they might well constitute a step towards another great period of building.

A sense of corporate emulation is unquestionably being encouraged through the rapid development of our architectural schools, and this carries consequences greater than can be measured in terms of improved qualifications. If the ideal private office was capable of supplying the ideal apprenticeship, inspired by the personality of the chief, and guided by practice, yet such a system was inimical to a corporate movement of architecture as a whole. The schools alone appear to be capable of introducing an element of social intercourse, and hence a free exchange of ideas between different generations and, with the advent of the woman student, wives and daughters can be drawn into the circle, thus widening the domain of architectural thought more effectually than might appear at first sight. The club element, the opportunity for foreign travel, where staff and students, old and young, mix naturally, all tend to generate a corporate spirit that must exert a profound influence on future work and outlook. The corporate spirit of the Middle Ages dictated uniformity—the domination of one, and only one, style, but under modern conditions it would appear to tend rather towards diversity, but always with the consciousness of a mass opinion and sentiment in the background. In such an atmosphere, criticism must become accentuated and, while there is the danger that some of the newer experiments may result in failure, yet we shall at least be sure of escaping eventually from servitude to accurate reproduction and the "Pompier," which we might translate "Shepherd's Pie," architecture, where old *motifs* are faithfully repeated in grandiose but lifeless juxtaposition. If the corporate influence of the schools introduces a levelling up in design, material, and detail, it will be all to the good, although, so far as one can see, it is almost impossible that we can again give a corporate contribution of the kind left by the Greek and Mediæval civilisations.

One of the most hopeful signs is the constantly increasing amount of space devoted to architecture in the general Press. Some thirty years ago it was the fashion for the literary man to cultivate an acquaintance with painting, and this cultural move has now been extended to embrace architecture. Such outside recognition was no doubt materially assisted by the considerable number of pioneers within the profession and a few well-known literary names, but it had its origin in the absolute necessity of awakening a sense of public responsibility if the beauty of our country and our heritage of fine building were not to be lost altogether. Indeed the present movement could have been foretold even in pre-war days. The war, and the liberation of thought that followed it, merely precipitated a corporate movement that was inevitable. It was inconceivable that England could lag behind the continent at a time when international intercourse had become closer than ever and when modern inventions had brought us into intimate contact with all that was going on elsewhere.

It is impossible to exaggerate the influence upon architecture of modern travelling facilities, of the drawings now available, showing in detail every new building throughout the world, and of the architectural photograph. In many ways, photography is the most remarkable of all our modern inventions, and although we now take it as a matter of course, to the Londoner of three hundred years ago it would probably appear as magical as wireless and the aeroplane. All that we can hope for in the immediate architectural future is a reintroduction of vitality into our designs and an avoidance of the errors peculiar to the last century. Industry and science advanced too fast for the arts to keep up with them, and in trying to force new conditions into old frameworks it appeared impossible to serve the two types of frame; either one cleaved to Gothic and despised the classical, or one worshipped the classical and condemned the mediæval. We have achieved something already if we have learned to appreciate and revere both but to serve neither. In the future one hopes to see a growing corporate spirit expressed in a critical camaraderie that will pleasantly ridicule the affected and scorch the definitely inane, but let us hope that it will have enough of adventure behind it to encourage legitimate experiment and so create a scope for the development of original talent. The rigid discipline which, by its criticism or conventionality, makes individualism sterile is no friend to the art it professes to serve, and it carried the seeds of its own destruction.

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NOTES

Architectural Quality.

We have endeavoured on another page to give a general idea of the contents of the architectural gallery at the Royal Academy, but we are fully conscious how nearly impossible it is to offer anything in the way of useful criticism. We think we could give some useful hints to students of what to avoid by reference to the exhibited works, even by highly accredited architects. In distinction of emphasis, pleasing proportion, and unity of design we find some large and important buildings singularly at fault, and we can only hope that those who are to be our architects of the future will find means of learning what are the prime essentials of good architecture. We fear that it is chiefly in the smaller subjects in this exhibition that the lesson may be found, such as Nos. 1338, 1312, 1287, 1265 and 1239. It would be amazingly instructive to those who have the future of architecture in their hands if anyone really alive to all the great essentials of fine art could point out to them and correct the failures of Academy subjects by a broad analysis on the blackboard.

Models.

In view of the two large models in the Architectural Gallery at the R.A., where space is very limited, and the small and interesting models now in the Architectural Exhibition at the R.I.B.A., it will occur to most people that the facts might well have been reversed. The models at the Institute are very good and are such as would give general pleasure to the public. But the severely architectural qualities of the models at the Academy and their great size render them unsuitable for the R.A. We suppose the model of the Midland Bank's new head office in the Poultry is about the largest ever shown at the R.A. The architects, Messrs. Gotch & Saunders, F.F.R.I.B.A., with Sir E. L. Lutyens, R.A., might have been wiser to be content with a drawing, for we suppose the upper stories of the building will hardly be seen from the street, and this has apparently been in the architects' minds, for the upper recessed portion has little or no concern with the lower part of the building.

Good and bad Architecture.

Knowing something of the difficulty of obtaining a concensus of opinion as to what is good or bad in Art, we should still like to emphasize our contention that large and important modern works ought not to be rejected by the R.A. if they are reasonably well illustrated. When architects take the trouble and expense of preparing drawings for the R.A. they may fairly look for some clarity of outlook and judgment in regard to their work, and they are justly critical when they find fairly good and often quite important work rejected, whilst subjects are accepted which are quite unworthy of an Academy exhibition. We have in our mind exceedingly good work which has either not been sent to the Academy or has been sent and rejected and we consider this is detrimental to the better understanding and appreciation of architectural art by the public. We are quite aware that we are speaking of an Academy of Art, but if they raise a high standard for acceptance should they not reject much they now accept? If they are reasonably clear as to what is good or bad, how is it that they accept all they do?

The Society of Master Glass Painters.

The meeting held recently in the Hall of the Art Workers' Guild, when Mr. Campbell Dodgson spoke on "Early German Woodcuts in relation to Stained Glass," was of considerable interest. Illustrating his address with numerous woodcuts and other designs of ancient character, the lecturer pointed out certain similarities of treatment which suggested the influence of these early woodcuts on stained glass design. The lecturer raised the point, whether it might not be concluded that stained glass design derived most from this source, so much is there in common between them. It may seem a somewhat academic issue as to which was the case in regard to this influence on one or the other, and the point of importance lies more in the use made of such influences whichever way bestowed. The great artist absorbs what he derives from others, until it all becomes part of himself, born again in time, for there is no such plagiarist as the great man who demands the whole world for his patrimony. The interest in such considerations as those raised by Mr. Dodgson are not lessened from the fact that for the art of stained glass there is nothing more important than that the artist should be freed from them at the present time. We do not appreciate any longer the endless reminiscences and imitations of outworn treatment and archaic manner, but look for the first hand inspiration of life and vision to-day. The ecclesiastical tradition of art lingers only as a survival, acting as a dead hand on art obstructive of genuine feeling and freedom to expression.

The Value of Traditional Influences.

The value of these influences are in no way however to be disregarded, and there is every advantage, used rightly, in acquaintance with the best examples of earlier periods. But in order to inspire our own work, we have to learn through it that all art which endures has the quality of first-hand experience and vision, depending on its own contribution, not on its likeness to what has gone before. To cut ourselves off from the past is no less impossible than undesirable, but appreciation lies in emulating its noble spirit not in borrowing

A Terra-cotta Filling Station in America.
Messrs. Cody, Hicks and Davidson, Architects.

the forms through which this found expression. We have our own message and interpretation, and only through the proper, disciplined emergence of this as art, truly related to the past, while at the same time securing in its character the promise of permanence and value, can we be said to have an art at all.

Conserving our Streets. THE interest now being shown in the conservation of the character and permanence of the older streets and houses in London comes at a time when the absence of this spirit and the consequent destruction entailed through disregard of it is very well understood. It is, however, not easy to decide how far this conservation can be secured, or how far it is desirable. Building has to meet the requirements of our own time, which entails difference, and we cannot expect that streets can remain always secured from the changes time brings along with it. At the same time, very much depends on the character of the demands made and the power of the architect to exercise his judgment as to what changes are inevitable and how they should be carried out. It is unfortunately the case to-day that premises often aim at being a sort of advertisement of the particular business interests concerned and do not include in the outlook of those responsible for them the obligations to the community and public interests which should prevail over private concerns. We see examples of this in many of our streets, squares and open spaces. As an instance, we may refer to the new stone-fronted building recently thrust into the middle of the older and characteristic architecture in one of our streets. How this sort of violation can be remedied it is not easy to see, as it depends more on public spirit and architectural appreciation than in any legislative enactments. Our wish must be that London should come first, and that what we renew, or alter, in the past traditions of buildings, should be governed by this better spirit.

Practical Lectures for Architects. A CORRESPONDENT writes to inform us that the Board of Architectural Education are considering very favourably the proposals to arrange a series of lectures for practising architects showing the relation of modern science to architectural practice. The need for such lectures was shown at the demonstration that was given by Professor E. G. Coker, Professor of Engineering at University College, London, on the use of prismatic rays for recording the stress on models of building structures. This series of lectures will have two main objectives: the first to revive forgotten knowledge, the second to acquire modern knowledge. It is felt that the strain of modern professional life makes it difficult for practising architects to obtain data on the advance of building science. Among the subjects of the lectures that it is hoped to arrange in the near future will be: (1) Strength of Materials, (2) Materials, their use and nature, (3) Design in Steel, Concrete, Timber, etc., (4) Heating, Lighting and Ventilation, (5) Gas and Electric Installations, (6) Building Acts and By-Laws, (7) Light and Air and other Easements.

ROYAL ACADEMY EXHIBITION, 1927.

"The Centaur" Relief (working model for Sunken Panel to be carved in wood over mantelpiece).

BY MR. WILLIAM C. H. KING, Sculptor.

New Thoroughfares. WE quote the following from Professor Richardson's interesting paper read last week before the London Society. "Because of the fettering of tradition, the obsolescent building clauses of the Act, the iniquitous rulings of the laws of ancient lights, and the lack of unity in street designs, nothing resulted except quarrelling with the older and more satisfactory values which were out of date. New buildings, such as Adelaide House, Bush House, Devonshire House and some of the recent office buildings in the City proved the limits to which the treatment of Portland stone attached to the steel skeletons could be taken. Those buildings had merit, but they were piecemeal contributions to ancient London. The effect of new main thoroughfares would be to link up the existing squares and open spaces and to reveal the majesty of the historic buildings, many of which could not be properly seen to-day. The new streets would provide scope for comprehensive design. There would be room for imaginative designs. For example, blocks of retail stores could be schemed with roofways and flying bridges connecting the blocks. There would be shops at three levels and batteries of lifts at intervals. The upper ways would call for extra policing, but they would all be closed at night. Had both sides of Regent-street been planned on these lines, a species of Uffizi Gallery would have resulted, giving London one of the finest open shopping arcades in the world.

Filling Stations. WE recently referred to the filling stations for cars which are springing up on all sides and the somewhat vulgar effect which so many have. In some cases these affairs strike a lively and not altogether unpleasant note at our road sides, but we could wish that some good artistic control were available for such things. The example we illustrate from America may go to the other extreme in giving an effect of almost monumental dignity, but the means of clothing simple useful things like this with some agreeable artistry ought to be within our reach. It is in the handling of such simple affairs of everyday life that we are so lacking nowadays in our artistic capacity.

Colonial City Developments. THE wider outlook towards the future, which is steadily developing amongst municipal authorities to-day, is evidenced in far-away Auckland by the careful report which has been prepared for the council of that city. So far as one can gather, the expert advice which has led up to the report is sound and well justified. The ultimate convenience as well as the dignity of this growing city appear to have been well considered, though time alone can show whether the scheme in view may not err on the side of timidity, costly though it appears. We may be fairly sure that in such a great city as London it is very unlikely that a forecast of the future will lead to sufficiently bold and adequate schemes. Failing the mischances of revolution and war, it is hardly likely we can fully realise the potential future of London. Even in Auckland it is possible that the idealist and dreamer of to-day will be proved to have been the most practical theorist for the future.

GENERAL NEWS

Professional Announcement.

Mr. James D. Morton, P.A.S.I., quantity surveyor, has removed from 3, Cable-street, to Wellington-buildings, The Strand, Liverpool. Telephone: Bank 745.

The Rowand Anderson Scholarship Award

The Rowand Anderson Scholarship for this year has been awarded by the Incorporation of Architects in Scotland as follows:—1st prize (medal and £100), Mr. Frederick R. Wylie, 2, St. Mary's-place, Glasgow; 2nd prize (£20), Mr. A. Gordon Lorimer, 212, Bath-street, Glasgow.

Bequest to a Church.

Miss Ethel Annie Worthington Cranmer, of Buckingham-place, Brighton, who died on February 21, left, amongst other bequests, "£500 to the vicar and churchwardens of St. Mary's Church, Upper Rock-gardens, Brighton, for carving one of the panels in the wall of the sanctuary by the side of the reredos with an appropriate subject, if possible to be the "Visit of the Magi," but if this cannot be done, then the said sum is to be used in some other way for adding beauty to the interior of the church."

Research Scholarships in Technology.

The Manchester Municipal College of Technology gives notice that a limited number of Research Scholarships in Technology (each of a value not exceeding £100) will be awarded in July, 1927. These Scholarships are tenable during the academic year 1927-8 in the Manchester Municipal College of Technology (Faculty of Technology in the University of Manchester). Applications must be received on or before July 6, 1927. Forms of application and all information may be obtained by written application to the Registrar of the College. Research may be undertaken in any, amongst others, of the following departments:—Mechanical engineering, electrical engineering, municipal and sanitary engineering, and applied chemistry.

Obituary.

Sir T. Duncan Rhind, A.R.I.B.A.

The death has occurred at Brighton of Lieutenant-Colonel Sir Thomas Duncan Rhind, A.R.I.B.A., who was for many years an architect in Edinburgh. He had been ill for some time. A son of the late Mr. John Rhind, A.R.S.A., sculptor, he was born at Edinburgh in 1871. He served his apprenticeship as an architect in the office of the late Mr. Hippolyte J. Blanc, R.S.A., and was afterwards for a time in a London office. On returning to Edinburgh he became a partner of the firm of Messrs. Paterson and Rhind, and after the death of Mr. Paterson he carried on business on his own account. His elder brother is Mr. W. Birnie Rhind, R.S.A., sculptor.

Old London Illustrated.

The Right Honourable Viscount Astor presided at a lantern lecture delivered recently at the Cliveden Estate Recreation Hall by Mr. Herbert A. Cox (author of "Old London Illustrated"). The lecture was illustrated not only by the drawings of London in the time of Henry VIII by the late H. W. Brewer, but also by three valuable models: (1) Old London Bridge, (2) the Mill Lock Arch discovered in 1921, (3) London's First Waterworks, founded in 1582, all of which are the property of *The Builder*.

His lordship said that when he saw the picturesque character of Old London he wished he had lived in those days, but as he listened to the description of London's first water supply, obtained direct from the river, he came to the conclusion he was glad he lived in these days of pure water.

The lecturer dealt fully with Old London Bridge and Old St. Paul's Cathedral, and also took his audience to the Tower of London, Aldgate and Cheapside.

Architect's Estate: A Bequest to the R.I.B.A.

Mr. Charles William Hunt, A.R.I.B.A., of 132, Station-road, Ilkeston, architect and surveyor, left estate of the gross value of £7,999. Among his bequests were £500 to the Royal Institute of British Architects, the income to be expended in the purchase of book prizes or medals for persons of British nationality under the age of 30 years who each year, in the opinion of the Institute, submit the best plans, drawings, or designs in connection with housing or town-planning or similar purposes. Subject to the payment of some other legacies and bequests, he left "the residue of the property in equal shares, if it does not exceed £2,000, for the vicar and churchwardens of Burwell, Cambridgeshire, and the Royal Institute of British Architects for like objects as mentioned above, but if it exceeds that amount any surplus shall be paid to the priest and Building Committee of the Catholic Church of St. Thomas and St. Mary, Ilkeston, for embellishing the High Altar in the said church."

Strode Park Estate House Design Competition.

The Strode Park Estate offers to the competitor submitting the best design for a private house on this estate, near Herne Bay, Kent, prizes as follows:—On Group A.—Main Road.—Minimum cost of house £1,500, a prize of a site with 100 feet frontage 300 feet deep, value £350. On Group B. District Roads.—Minimum cost of house £800, a prize of a site with 50 feet frontage, 250 feet deep, value £100. On Group D. East of Suggested Road.—Minimum cost of house £450. A prize of a site with a frontage of 50 feet and a minimum depth of 200 feet, value £50. Designs, consisting of plans of each floor, front and back elevations, sections and lay-out plan, with a general description of the construction, to be delivered to the Secretary, Estate Office, Strode Park, Herne, Kent, from whom full particulars may be obtained, by June 30, 1927, with an estimate of the total cost. One condition of the competition is that each competitor will have to undertake to erect and complete before December 31, 1927, upon the prize plot a house in accordance with the prize-winning design, conforming with the local by-laws.

Rome Scholarship and Henry Jarvis Studentship, 1928.

Conditions and details—obtainable from Mr. Evelyn Shaw, Office of the British School at Rome, 1, Lowther Gardens, S.W.7—are now available of this scheme of competition for the Rome Scholarship in Architecture, 1928, offered by the Commissioners for the Exhibition of 1851, and for the Henry Jarvis Studentship, offered by the Royal Institute of British Architects. The Rome Scholarship will be of the value of £250 per annum, and will be tenable at the British School at Rome for a maximum period of three years. Candidates must be British subjects and less than 30 years of age on July 1, 1928. The Jarvis Studentship will be of the value of £250 per annum, and will be ordinarily tenable at the British School at Rome for two years. This Studentship will be confined to candidates who are, or who in the opinion of the Council of the Royal Institute of British Architects are eligible to become, Students or Associates of the R.I.B.A., but otherwise the conditions for the two awards will be the same. The competition, which will be conducted by the Faculty of Architecture of the British School at Rome, will be in two stages, viz.: A preliminary competition open to approved candidates and a final competition open to selected and approved candidates. Application to compete in this competition must be made on the prescribed form to the Honorary General Secretary, British School at Rome, 1, Lowther Gardens, Exhibition Road, London, S.W.7, not later than October 15, 1927.

COMPETITION NEWS

Birmingham Civic Centre.

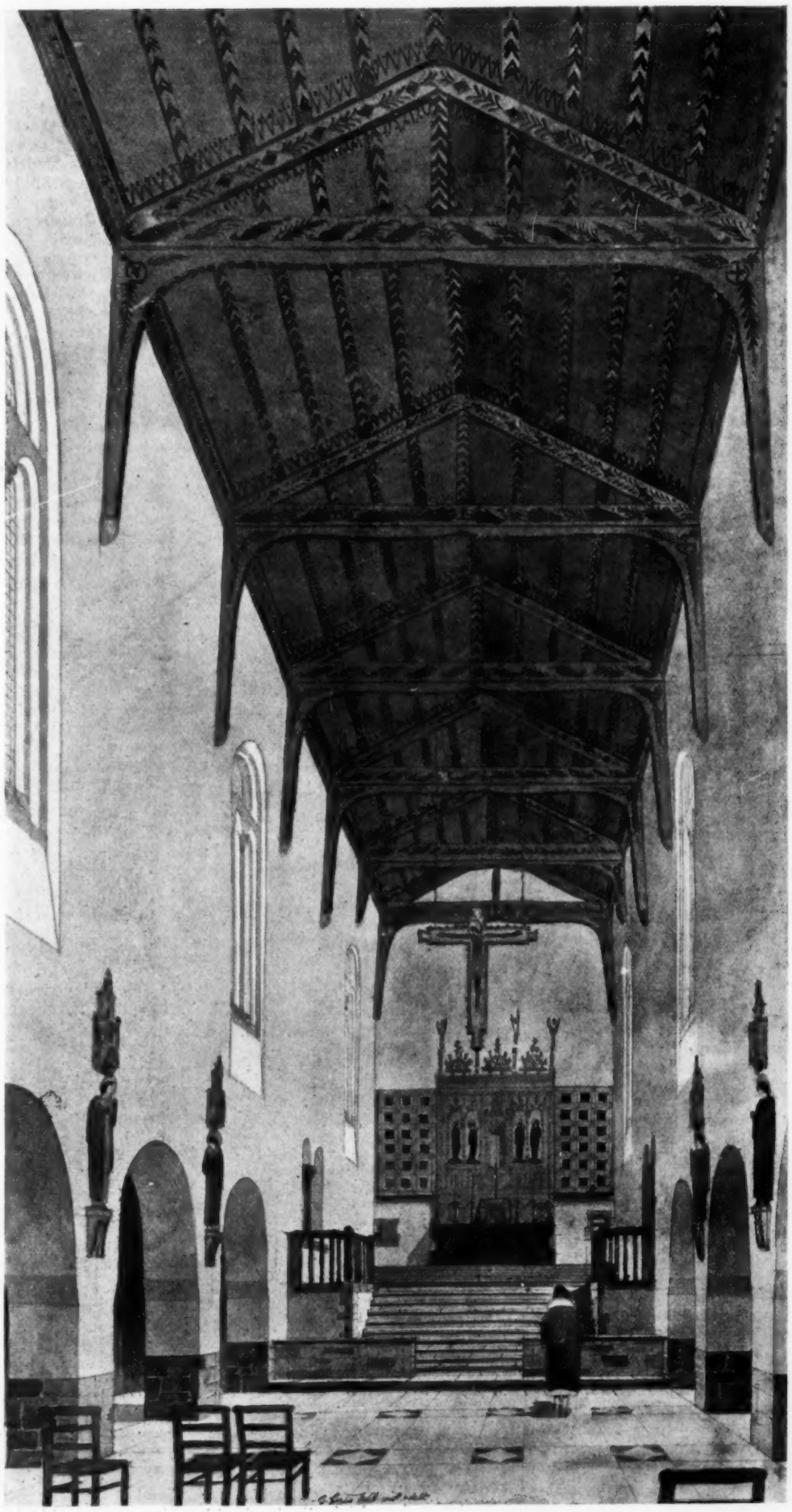
The sending-in date for this competition is June 30th, not May 16th as we have previously stated. Mr. H. V. Lanchester, F.R.I.B.A., M.T.P.I., is the assessor. Designs have to be sent to Mr. H. H. Humphries, M.Inst.C.E., M.T.P.I., City Engineer and Surveyor, the Council House Birmingham.

COMPETITIONS OPEN.

Lay-out and architectural treatment of approaches to the Palais de Justice, Brussels. Apply M. Le Conservateur du Palais de Justice, Brussels. International competition. No premiums offered, but successful competitor to be remunerated on Belgian scale.	Mar. 18	June 15
Grammar School, Bradford, for 1,000 boys. Premiums: £300, £200, and £100. Mr. Arnold Mitchell, F.R.I.B.A., assessor. Apply Mr. W. Brear, Secretary, Grammar School, Bradford, Yorks. Dep. £1 1s.	Feb. 18 and Mar. 4	—
Edwin Austin Abbey Memorial Scholarships for Mural Painting. Two Minor Scholarships of £125 a year each, and one Major Scholarship of £250 a year. Candidates must not be over 25 and 27 years of age for the respective Scholarships on December 31 preceding the competition. Apply Secretary, Edwin Austin Abbey Memorial Scholarships, Chelsea Lodge, 42, Tite-street S.W.3	June 11	July 1
Shakespeare National Memorial Theatre, Stratford-upon-Avon. Competition open to architects of the British Isles and America. To be held in two sections: first, Sketch Designs, from which six will be selected, and the authors each paid £100 towards cost of preparing more detailed schemes, which will form second part of competition. Selected architect will be paid in accordance with R.I.B.A. schedule of charges. Apply Secretary, Shakespeare Memorial Theatre, Stratford-upon-Avon. Deposit, £1 1s. Assessors, Messrs. Robert Atkinson, F.R.I.B.A., E. Guy Dawber, P.R.I.B.A., and Cass Gilbert.	June 15 (Preliminary Jan. 14 Designs)	
University Buildings, Western Australia. To cost £150,000. Premiums: £400, £300, £200. Open to British subjects or citizens of U.S.A. Assessors: Professor Leslie Wilkinson, F.R.I.B.A., Mr. A. R. L. Wright, L.R.I.B.A., President Royal Institute of Architects of Western Australia, and Member of University Senate Apply Agent-General for Western Australia, "Savoy House," 115-116, Strand, London, W.C.2, or Australian Trade Commission, 44, Whitehall-street, New York, U.S.A.	Jan. 14	Aug. 31
Cemetery Chapel, Reading, for Corporation. Open to architects residing or practising in Berks, Bucks or Oxon. Premiums: 50 and 25 guineas. Apply Borough Surveyor, Town Hall, Reading. Deposit, £2 2s. Mr. Charles J. Blomfield, F.R.I.B.A., Assessor, 13, Ashburn-gardens, London, S.W.7, to whom designs have to be sent.	April 15	July 1
Private Houses, Strode Park Estate, Herne, Kent. Three prizes of free sites, value £350, £100 and £50 offered for best designs for private houses to cost £1,500, £800 and £450 respectively, and to be erected on prize-winning sites. Apply, Secretary, Estate Office, Strode Park, Herne, Kent.	April 22	

Memorial Windows at Oxford.

Viscount Cave, the Lord Chancellor, is to unveil, on May 17, in the Old Ashmolean, Oxford, memoral windows to Elias Ashmole, Sir Christopher Wren, and Dr. Robert Plot, the first Custos. The Royal Institute of British Architects is giving the Wren window.



ROYAL ACADEMY EXHIBITION, 1927.

Proposed Catholic Church, Ashford, Middlesex.

SIR GILES GILBERT SCOTT, R.A., F.R.I.B.A., Architect.

ARCHITECTURE AT THE ROYAL ACADEMY

If we could have an Academy exhibition which was truly representative of the best architecture of the time, it would perhaps be quite as interesting to the public as the kind of exhibition they do get, and it might afford some real encouragement to architectural art. That many studies of architecture are not accepted solely on their merits is evident enough unless we are to form a very low estimate of the judgment of the Hanging Committee. We can hardly believe that those who from year to year are responsible for what is accepted and rejected take a quite fair view of their responsibility. During a long experience, we have endeavoured to discover whether any fair principle of action has guided their judgment, and we must confess that only in two or three instances have we felt that a sound and equitable judgment has been exercised. It has generally been known either before or after the exhibition with whom lay the chief responsibility, and we believe it is undoubtedly true that the fairest and most satisfactory selections have been made by the late Alfred Waterhouse, not to mention one or two living men. We do not venture to do more than offer, with all respect, a few suggestions as to how we think a more satisfactory way might be found to deal with architectural subjects at the Academy. There is first the question whether everything good should be accepted and everything bad rejected. As to the rejection of what would be generally considered bad work, there would be few exceptions. Large and important works even if "bad," should sometimes be hung, and all bad works of inferior importance absolutely rejected, even though of a convenient size or attractively set forth. Good works would all be accepted unless of insufficient importance or value for public exhibition. If some such general rule as this was observed, the present and many former exhibitions would have been largely altered. But when this has been said, we have to remember the personal preferences of the Hanging Committee which will account for the varying definitions of what is good or bad in any work of art. Some excellent examples of modern Gothic would never have been exhibited but for the hanging by Pearson or Bodley or Jackson, and this leads to the suggestion that the Selection Committee should include those of the most divergent views. Having decided that everything bad should be rejected, except where it is of special importance, the Academy would have cleared itself of any possible reproach that it sets no high standard of accomplishment and confers no honour by its acceptances.

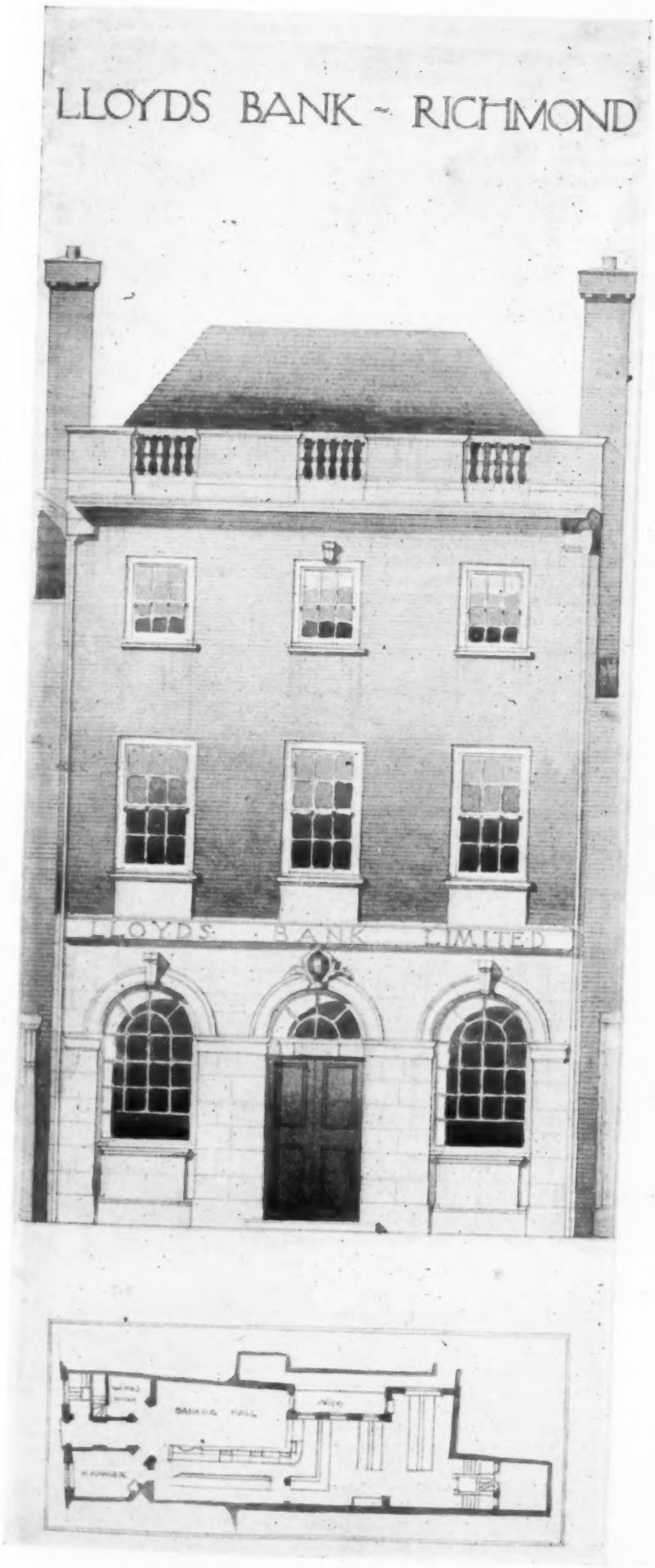
Obviously, the next consideration is the quality of representation of the various works sent in, for the Academy aims to appeal to the general public and to put before them exhibits of genuine attraction. There is no need, however, for architects to resort to the exhibition of merely pretty pictures, and they do not belittle the dignity and gravity of their art if they essay to render their designs in as near approach to the real results as built. It is not even necessary that colour should be used, for monotone often suggests colour. But no gorgeousness of colour on paper is likely to overstate the brilliance of a theatre interior or a ballroom, and it is in this respect that we find nothing but pleasure in the brilliant colour interiors of Mr. Robert Atkinson or Sir Edwin Lutyens, or the colour section of Mr. Dixon-Spain. In some respects we may prefer the delicate tone and colour effects by Mr. Goodhart-Rendel, but such things are perhaps too dainty and refined to be popular. As an example of general articulation of the facts of a design we could hardly have anything better than the gay drawing by Walcot, or the fine design for the Masonic Memorial Building by Messrs Louis de Soissons and G. G. Wornum (in 1245). If the same artist had treated Sir Aston Webb and Son's Army and Navy Stores (in 1297) just in the same way the breadth and dignity of the design would have been far better realised. To take another example of representation, how telling is the sketch of Mr. Mervyn Macartney's Sovereign's Throne, in St. Paul's Cathedral (1287); the real and telling effect of the admirable design is apparent to all.

In the Church of St. Mary and St. Thomas at Gorton (1265) Mr. Walter Tapper is fortunate in the real and broad effect of the colour view by Mr. Farey, and one is almost inclined to think on seeing this design that it is not absolutely necessary for Mr. Tapper to work in pure Gothic. Mr. Curtis Green exhibits six beautiful drawings (though perhaps four would have been enough!) of broadly treated, dignified work, and here the representation of the work seems quite right even for a popular gallery. Then in the view of the Piccadilly end of the Quadrant one may realise the truthfulness of expression of Sir Reginald Blomfield's able control of the lower end of Regent-street, wherein he has carried on the Norman Shaw tradition, so that all round about this part of Piccadilly-circus we shall have something of a real unity and dignity of effect. The accepted design for the Masonic Memorial Building in Gt. Queen-street (1313) by Messrs. Ashley and Newman, might have been more convincing perhaps if seen differently from this view, for the general elevation, which is balanced and good, does not fit in quite pleasingly with the angle tower.

The Lloyds Bank view (1260), by Sir John Burnet and Partners, is effectively illustrated in a charcoal or pencil sketch by Mr T. S. Tait which we have illustrated. This shows how satisfactory a fine pencil sketch on a large scale may be. Mr. Guy Dawber's Foord Almshouses, Rochester, are shown in a pleasant colour view (1306), and will we think be certain to be one of his most successful works. King Feisul's new palace at Bagdad is tellingly shown in a coloured view (1307). Mr. Jas. M. Wilson, the architect, has cleverly treated this with a good oriental feeling. The Courtyard view of Messrs. Richardson and Gill's University College (1312) is another graphic illustration of agreeable design. The admirable design for the Leeds University, by Messrs. Lanchester, Lucas and Lodge, is hardly done justice to, though it is clearly sketched in two pen views (1233) and (1241). One of the best drawings in the gallery is that of the Chantry Bridge at Rotherham (1296), in which Sir Reginald Blomfield has presented something of the interest and charm of old works. Another well illustrated subject is the excellent group of L.C.C. buildings on the Kennings estate by Mr. G. Topham Forrest.

We have referred above to several of the more noticeable subjects, and chiefly in reference to the way in which they have received their illustrative exposition. This by no means exhausts the lists of exhibits which call for mention. There is, for instance, the banking hall in the new building at Doncaster (1238) for the Westminster Bank by Messrs. Brierley and Rutherford, illustrated in colour, with yellow toned walls and red columns, which, as a whole, is probably much darker in tone than here suggested. The same architects, in collaboration with Messrs. E. A. Boardman and Son, of Norwich, have an exterior coloured view of a bank building at Norwich (1266): it would perhaps be easier to be more original than to make a better bank building. There is a not unacceptable change from traditional types in the St. Katherine Colman House by Mr. E. G. W. Souster (façade by Messrs. Collcutt and Hamp), a monochrome elevation (1389) showing some clever treatment of roof and details. The tinted view (1382) of the new offices which are being built for the London Electric Railways at Queen Anne's-gate has a somewhat laboured and heavy effect. The large model above it elucidates the scheme by the architects, Messrs. Adams, Holden and Pearson. The plan, which has ways radiating from a central block, will probably give a better effect of light and air than one with interior courts. It is all uncompromisingly square and severe, but will have some picturesque values, probably, under the wonderful effects of a London atmosphere. One of the most interesting drawings is the coloured view (1399) of a well-designed group of flats on the Larkhall estate, Clapham, by Messrs. L. de Soissons and G. G. Wornum. The projecting brick balcony above the second floor is an effective feature, and the accentuation of features in the whole front is quite pleasing. Photographs and elevations of the Egyptian State Telegraph and Telephone building at Cairo, by Mr. Maurice Lyon, fill a good-sized frame, but the result is somewhat dull. Two tinted elevations show Mr. Arnold Mitchell's two designs for Messrs. Cook's building in Berkeley-street, and suggest that economy has been too rigidly exercised in the executed work. The new Physical Laboratory at Teddington, by Mr. Fred. A. Llewellyn, is unfortunate in its two illustrations (1254-5). When the new premises in Henrietta-street (1246) by Messrs. Gibson and Gordon are completed, Messrs. Debenham will have one of the finest stores in London. It is a pity that the point of view for the alteration of Messrs. Stagg and Russell's premises in Leicester Square (1244) was not taken so as to show what is one of the most successful efforts in London to brighten our street architecture. The general colour effect with the brightly-coloured porcelain ends is excellent. The architects, Messrs. Whinney, Son, and Austen Hall, are to be congratulated on their success. The delicate tinted view (1240) hardly does justice to Messrs. Adshead and Ramsey's Worthing Pavilion.

Amongst the larger buildings are the Middlesex Hospital by Mr. Alner W. Hall, a tinted view of the courtyard (1234)—New School of Pathology, Cambridge University by Mr. Edward Warren, a tinted view of a comfortable looking red brick building (1261)—illustrations of the Raffles College, Singapore, by Messrs. Farey and Dawbarn, effective coloured views—the Northern Parliament House, Belfast, by Mr. Arnold Thornely, a good traditional type of Renaissance (1274)—University



ROYAL ACADEMY EXHIBITION, 1927.

Lloyds Bank, Richmond.

MR. HORACE FIELD, F.R.I.B.A., Architect,

College, Dublin, by Mr. Rudolph M. Butler, a quiet grey drawing in a Greek type of well-balanced Renaissance (1291) – Stratton House, Piccadilly, by Mr. W. Curtis Green, a square-proportioned front which shows the difficulty of design for flats with small heights for rooms (1302)—Secondary School for Girls at Gravesend, by Mr. Wilfrid H. Robinson, a quite nice red brick building (1303)—Stuart House, Cambridge, a Georgian building, by Messrs. Geo. Hubbard and Son (1304)—a perspective sketch (1305) of a corner of the Bournemouth Pavilion, by Messrs. Home and Knight—new school at Cooden, a good school building, by Messrs. Kieffer and Fleming (1320)—proposed school Seymour Place (1403), by E. B. Webber—an entrance for the Woolwich War Memorial Hospital, by Messrs. Pite, Son and Fairweather, not very well shown (1375)—Coulsdon and Purley Municipal Buildings (1379) by Messrs Nicholls and Hughes—the Missionary Guest Houses, Selly Oak, a pen sketch nicely illustrating an excellent building by Prof. Beresford Pite (1384)—new offices at Manchester, a rather imposing pile (1393), by Mr. Henry S. Fairhurst. The Rhodes House, Oxford, by Sir Herbert Baker, A.R.A., is an interesting design, but the clever perspective view rather fogs the design than helps to explain it (1288).

Amongst the exhibits of domestic work we miss some of the more interesting examples of other years, though there are a number which help to uphold the credit of our domestic art. We are not surprised to find one of the best things, a charming little water colour of a gabled house (1239) by Messrs Baillie Scott and Beresford, hung so that it cannot be seen with comfort, and is liable to be overlooked altogether. Such an excellent subject, and where the design and its representation are so really in sympathy, is something of a rarity; the drawing alone would be worth showing as an example of water-colour drawing, but its charm does not come between us and the design of the house, but really expresses it. An unusual subject nowadays is the Gothic hall of Nymans at Handcross, Sussex, by Mr. Walter Tapper, A.R.A., the interior (1321) and the exterior (1326): it is rather pleasant to find a desire for our characteristic English Gothic still alive. The House at Hawkhurst (1249) is the only house design by Mr. E. Guy Dawber. Amongst other domestic work will be noted 1311, by Mr. Eadred J. T. Lutyens, 1228 by Mr. P. D. Hepworth, 1236 by Mr. Maufe, 1248 by Messrs Pite, Son and Fairweather, 1252 by Mr. Poulter, 1256 by Messrs. Lowry and Woodhouse, 1259 by Mr. Oliver Hill, 1283 by Mr. H. Lidbetter, 1290 and 1300 by Mr. C. G. Blomfield, 1315 by Mr. Wontner-Smith, 1323 by Prof. Beresford Pite (a subject that is good enough to be an old design), 1328 by Messrs. Forsyth and Maule, 1380 by Mr. Arnold Mitchell, 1317 by Mr. Harding Thompson (a pleasant group of village buildings).

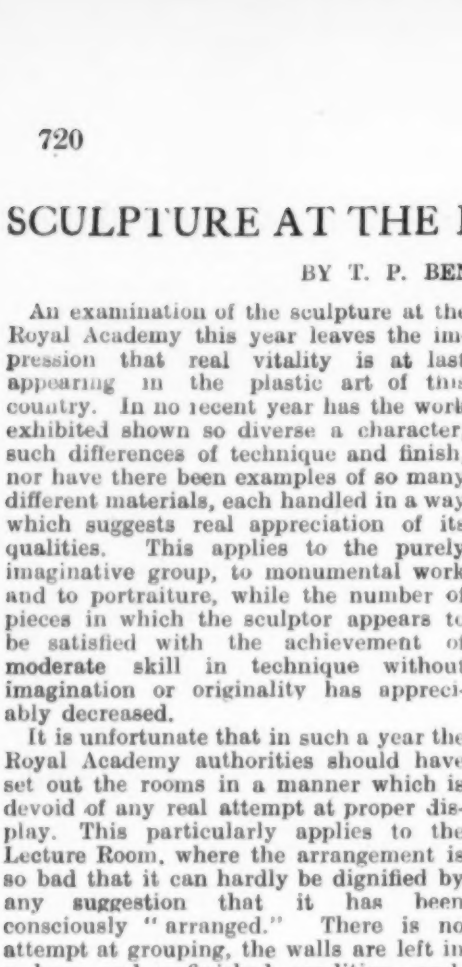
The ecclesiastical work includes an interesting subject by Sir Giles Scott in his Catholic Church at Ashford, exterior and interior (1329 and 1338): the interior suggests the side walls incline inwards at the top, or is this a hint from Mr. Goodyear? The lofty narrow nave may be taken as a symbol of aspiration, and we should certainly call it a worshipful interior. Sir Robt. Lorimer's Stowe Chapel is well illustrated (1237), and will have a certain dignity, but we prefer his exceedingly able Gothic work to this.

SCULPTURE AT THE ROYAL ACADEMY, 1927

BY T. P. BENNETT, F.R.I.B.A.

An examination of the sculpture at the Royal Academy this year leaves the impression that real vitality is at last appearing in the plastic art of this country. In no recent year has the work exhibited shown so diverse a character, such differences of technique and finish, nor have there been examples of so many different materials, each handled in a way which suggests real appreciation of its qualities. This applies to the purely imaginative group, to monumental work and to portraiture, while the number of pieces in which the sculptor appears to be satisfied with the achievement of moderate skill in technique without imagination or originality has appreciably decreased.

It is unfortunate that in such a year the Royal Academy authorities should have set out the rooms in a manner which is devoid of any real attempt at proper display. This particularly applies to the Lecture Room, where the arrangement is so bad that it can hardly be dignified by any suggestion that it has been consciously "arranged." There is no attempt at grouping, the walls are left in a bare and unfinished condition, and, generally speaking, the least possible assistance has been given to the men who have achieved the distinction of becoming exhibitors. This deplorable result indicates the need for giving much more scope to the architect and sculptor members of the R.A. Council, amongst whom it must be possible to find a man who can give reasonal arrangement to a very fine collection of sculpture.



ROYAL ACADEMY EXHIBITION, 1927.

"Chanson Triste" Relief.

BY ALFRED BUXTON.

There is a considerable amount of work in which the figure and drapery have been conventionalised to a degree which makes the result that of an architectural character, and, therefore, of particular interest to architects. In the Central Hall there is "The Balance," a model of a figure for the National Provincial Bank of England at Cardiff. It is the work of J. A. Stevenson, and is executed in green bronze of an extremely attractive colour and a very fine patina. It represents a draped female figure holding a balance of Egyptian character horizontally across the breast. It has the atmosphere of Greek work, yet secures the effect of modernity, and justifies description as a work of great interest and considerable power, and should look extremely attractive in the right type of architectural setting.

A work of a totally different character is the "Little Apple," a group in stone by Henry A. Poole. This is a three-quarter length of a woman clasping a small child closely to her. The drapery is treated in flat planes and emphasises the general swing of the group, focusing attention in an excellent manner, and giving quite exceptional balance to the whole. There is a fine sense of handling in the method of finish, and the conception is both original and interesting.

In "Man and Woman," a group in stone by Charles Wheeler, there is an example in the ultra modern manner of the male and female torso, treating the outlines and the general modelling of the sculpture in such a way that they immediately arrest attention and strike a note which is new and not unattractive. Again the material is very ably handled and well expressed in the finished work.

In the same architectural category must be placed Reid Dick's "The Child," although it is actually a statuette and not, therefore, presumably intended for an architectural setting. It is executed in stone, exhibited in a side view showing a particularly well-balanced composition where the treatment of the general lines of the figure and of the drapery are excellent examples of imaginative composition.

It is difficult to see why space was given to the large "Recumbent Effigy" in marble, monument to Henry Cust at Belton, which has no composition, no architectural character, and is finished in a particularly unpleasant type of gold having nothing to recommend it in colour, texture, or any other quality.

Of the lighter works the large group by Chas. S. Jagger called "Garden Group" is worthy of attention. It represents a satyr on a pedestal with a girl standing in front holding up her lips for a kiss. There is a spontaneous atmosphere of youth about this group which is altogether excellent, and is extremely suitable for garden work. It has managed to achieve wonderfully vigorous vitality, and seems to have completely captured the spirit of "joie de vivre."

Many other works are worth notice; there is "King Robert of Sicily," by George H. Paulin, a seated male figure in white marble with a monkey on its knee, which is very finely conceived and well modelled and achieves a large amount of interest both in subject and treatment. "The Return from the Chase," by Chas. L. J. Doman, is a green bronze garden figure of very good colour treated in a decorative and suitable manner. The half figure of Chas. Jagger by Lady Freda Forres is good in composition, general handling, texture and colour, but its likeness to the sitter might have been improved. The garden figure in Hopton Wood stone, by Thomas J. Clapperton, is a fine piece of carving in simple planes.

The statue to be erected at Llandaff to the late Archdeacon Buckley must be one of the finest works of Sir W. Goscombe John. It is vigorous and characteristic, well modelled, and in addition to its other fine qualities achieves distinction by being executed in bronze with a curious whitish green finish, achieving an original and very satisfying effect. If the standard of the setting equals that of the figure, this monument should be a very fine piece of work. "The Thrall," by Hermon Cawthra, is a well modelled figure of sculpturesque effect, displaying conscientious workmanship. It is executed in dark green bronze.

There are many good "heads," varying from the purely naturalistic treatment to extremely conventional handling. The best of these are "Joan," by Albert Toft; "The Levite," a powerful example of modelling in concrete, by F. Doyle Jones; "Lola," a bust by W. Reid Dick; Beatrice," by Cecil Gunthorp; "Alex," by E. Whitney-Smith, and a portrait head by M. J. Morahan.

There are also a number of statuettes which have a considerable amount of interest, while particular attention should be given to the "Mask," in glazed pottery, by Gilbert Bayes. It is very fine in colour and in general treatment, and has distinction and attraction rarely achieved in glazed ware. Mr. Bayes's statuette, "England," is also a work of real accomplishment.

There are only a few reliefs in this

ROYAL ACADEMY EXHIBITION, 1927.

Bronze Statuette, "1926."

BY ALLAN HOWES.

Royal Academy Exhibition, 1927.

"Before Battle."

By S. W. Ward Willis.

year's exhibition. One particularly vigorous composition, however, is a circular panel called "Centaur," by Wm. C. H. King. This appears rather to be "incised" than "relieved," but is nevertheless a fine and vigorous piece of work.

There are also several pieces of wood carving which have an attraction of their own, whether they are cut as separate pieces of wood or whether they are modelled in such a way that they retain something of the general outline of the tree. As examples of this work, mention must be made of the "Tawny Owl," by Alfred H. Wilkinson, "Thomas Didymus," by Harold J. Youngman, and a small piece called "Boy with Melon," by Frederick E. C. Gardner.

CORRESPONDENCE

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

The Royal Academy.

Sir,—Your reference in last week's issue of The Builder to the honour somewhat tardily bestowed upon Mr. Guy Dawber, shows how inappreciative the Royal Academy can be. As a well-known Academician once remarked: "The house beautiful is the goal of our ambitions." This pertinent saying may be true of those artists who have shot their bolt, but it does not apply to those who still believe in their powers. The fact remains, however, that architecture, the mistress of the arts, suffers from inadequate representation within the charmed and exclusive circle. It might be argued that more honours, more feathers, implies greater responsibility, but all the same there are rare birds outside the cage not unwilling to go inside. The Royal Academy, an eighteenth-century institution, in no way represents the vast circle of artistic endeavour at present in this country. Meanwhile, the twentieth century is advancing towards youthful middle age; new ideas and new methods are slowly ousting conservative traditions, which latter are beautifully parasitic, yet banefully harmful. The Academicians are apt in their longevity to forget the claims of their juniors, and standing secure on their limited plot seek to belittle the efforts of others. Is it not somewhat anomalous that 10,000 practising architects should have but ten representatives at the Royal Academy. No one in Scotland believes any of the members of this Knighthood of Art to be a man in a thousand. As you hinted in your notes, there are at least a score of British architects whose work merits recognition before they leave this world for the next. Angus Maconichie.

Glasgow, N.B.

Architecture at the Royal Scottish Academy.

Sir,—Your reviewer says with reference to the designs for the coloured cement roundels at the Aquarium that "they suggest rather mosaic or cloisonne than cement." The process is, in fact, exactly that of the latter if champleve be substituted for cloisonne. The Atlas white cement ground is first laid down over the whole surface, the main masses of the design are then cut out and filled with the same material in different colours, leaving the intervening lines and spaces of white to contour and outline the pattern. The remark is a small one to cavil at, but this explanation seems to be due in justice to Mr. Thos. Beattie, the craftsman who some time ago introduced and has now developed with extremely satisfactory results this method of decoration.

The Designer.

The Registration Bill and Engineers.

Sir,—The letter in *The Builder* of April 15th under this title is interesting, since it is one more illustration of the long way certain architectural assistants and official architects have yet to travel before admitting the obvious remedy for their grievances. It is illogical for such members to talk of being overlooked and over-ridden by engineers, etc., of being "loyal subscribing members" of professional institutes such as the R.I.B.A., and ignore the fact that by holding aloof from the organised salaried section of their colleagues they are preventing such organisation from winning them a status commensurate with their work and abilities. Do they expect those members of the R.I.B.A. or any other such body, and employers such as local authorities, etc., an important part of whose interests is opposed to those architectural assistants, to win for them the rights your correspondent desires? He is lacking in knowledge of human nature if he thinks they will do so. Architectural assistants, like all other sections of the community, will have to organise as such, and by dogged perseverance and pluck win the rights and privileges they so ardently desire. A start in this direction has been made, and the progress of the Association I refer to has been remarkable.

Salaried Architect.

Royal Academy Exhibition, 1927.

Portrait Head :—Mr. Albert J. Thomas.

By Allan Howes.

Royal Academy Exhibition, 1927.

"Before Battle."

By S. W. Ward Willis.

MEETINGS

Friday, *May* 6.

Institution of Structural Engineers.—Joint Meeting with the Société des Ingenieurs Civils de France. Monsieur Le Trocquer, Past Minister for Public Works (France), on "Engineering Features of the Channel Tunnel." (In French.) 6 p.m.

London Society.—Annual Dinner, at Hotel Victoria, Northumberland-avenue, W.C.2. 7.45 p.m.

Saturday, *May* 7.

Edinburgh Architectural Association.—Visit to buildings in course of erection in Glasgow.

Institution of Municipal and County Engineers.—South Eastern District Meeting, at Dover. 11 a.m.

Monday, *May* 9.

Royal Society of Arts.—Mr. J. W. T. Walsh on "Measurement of Light (3)." 8 p.m.

Surveyors' Institution.—Discussion on "The Practical Application of the Rating and Valuation Act, 1925," by Mr. A. M. Trustram Eve. 8 p.m.

Tuesday, *May* 10.

University Lectures.—Mr. W. H. McLean on "National Regional and Town Development Planning." University, Gower-street, W.C.1. 5.30 p.m.

National Housing and Town Planning Council.—Annual Conferences of Local Authorities in England and Wales. At Town Hall, Newcastle-upon-Tyne. 11 a.m.

Wednesday, *May* 11.

Royal Archæological Institute.—Mr. R. E. Mortimer Wheeler on "London and its Vikings: New Materials." 5 p.m.

Thursday, *May* 12.

Society of Antiquaries.—8.30 p.m.

Institution of Structural Engineers.—Mr. A. G. Pugsley on "Some Problems in the Design of Steel Roof Truss Members." 8 p.m.

Friday, *May* 13.

Institution of Municipal and County Engineers.—Metropolitan District Meeting. 92, Victoria-street, S.W.1. 6 p.m.

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ILLUSTRATIONS

Proposed Catholic Church, Ashford, Middlesex.

This church is to be built upon an open and level site. The design is Romanesque in character. The walls will be faced externally with Dutch bricks, and plastered internally with dressings of brown Hornton stone. There will be an open timber roof, decorated in colour. This roof will be covered externally with special Italian tiles. The church will consist of nave and sanctuary of lofty proportions, with transepts forming chapels. Over the southern chapel will rise the tower. The nave will have aisles, which will be used for processional purposes only and not for seating. There will be a gallery over the western bay of the nave. The main entrance will be by a porch at the south-west angle of the building. This porch will balance the baptistry at the north-west corner. A distinctive feature of the interior will be the unusual height of the sanctuary floor above the nave floor, an arrangement which will enable the sacristies to be accommodated under the sanctuary.

Sir Giles Gilbert Scott, R.A., F.R.I.B.A., is the architect.

The Army and Navy Stores.

Owing to the fact that this building is being remodelled in sections, and not rebuilt, the old window spacings and floor levels have had to be retained. This has naturally affected the design, the first section of which is now being carried out in red brick and Portland stone. The total length of the frontage is 341 feet, and the height 80 feet to the top of the cornice. The plain frieze under the cornice, upon the effect of which the design largely depends, masks the restaurant, stock rooms, etc., all of which can be top lighted. Messrs. Dove Brothers are the contractors for the present sections, and Mr. F. Comport the clerk-of-works.

Sir Aston Webb and Son are the architects.

New Premises—Fenchurch-street, E.C.

This building, now in course of erection, occupies the site on which formerly stood the Church of St. Katherine Coleman. It is designed for the purpose of letting as offices. The two principal elevations are being carried out in hand-made brick with wide joints, the dressings being in artificial stone. The roof is to be covered with hand-made sand-faced Roman tiles. The windows are to be in deal painted. The general contractors for the work are Messrs. Minters, of Putney, and the models for the stone enrichments are being prepared by Mr. P. G. Bentham, of Gunter-grove, Fulham, S.W.

The architect for the building owner is Mr. E. G. W. Souster, F.R.I.B.A., of 3, St. James's-street, S.W.1, but the two principal facades shown in the drawing have been designed by Mr. Stanley Hamp, F.R.I.B.A. (Collcutt and Hamp), of 120, Wigmore-street, W.1, as consulting architect.

Department of Anthropology, University College.

The proposed Department of Anthropology, plans of which are in preparation, is intended to form an extensive adjunct to University College. The new buildings have been schemed to provide accommodation for the following departments—zoology, psychology, archæology and anthropology; in fact, they will form a branch of the college which will accommodate all research that pertains to the history of mankind. The plan is a quadrangle, the chief features being the five theatres at the ground level, two on either side and the central one for general use On the first floor are grouped the museums and libraries.

Messrs. Richardson and Gill, FF.R.I.B.A., are the architects.

New Headquarters, Lloyds Bank, Ltd.

The new building for Messrs. Lloyds Bank, Ltd., now in the course of erection, will occupy a fan-shaped site with frontages to Cornhill and Lombard-street, of 146 ft. and 198 ft. respectively, and will house both the Head Office department and the City Office. The accommodation, apart from the basements, will be provided in eight stories above the street level, the ground floor and the mezzanine floor immediately above being devoted to the City Office, the remainder being allocated to the Head Office. The structure will be of steel-framed construction, and the main fronts are to be faced with Portland stone with granite plinths, window jambs, and keystones to the ground floor arcaded story. The entrance doors are to be of bronze enclosed in a marble surround, and the infilling of the arched window openings will also be of bronze. The banking hall on the ground floor, which is planned on an axial line equidistant from both sloping fronts, will be finished with marble wall linings, columns, floor and counter, the latter enclosed with metal grilles. The contractors for the work are Messrs. Trollope and Colls.

The architects are Sir John Burnet and Partners and Messrs. Campbell Jones, Sons, and Smithers, with Dr. Oscar Faber acting as structural engineer. (Other views of this building were given in our issue for January 14, 1927.)

New Underground Railway Offices, Westminster.

The plan of these new buildings is cruciform. The central hall, lifts, staircases and lavatories will occupy the central tower, the wings being given up to office space. The booking hall of St. James' Park station will occupy the ground floor of the north wing. The building will be of steel-framed construction, faced throughout with Portland stone. A feature in the plans is the absence of internal lighting areas.

Messrs. Adams, Holden and Pearson, F F.R.I.B.A., are the architects.

Lloyds Bank, Richmond.

This building has a Portland stone front elevation, with 2 in. red brick facings. The floors are of steel and concrete. The flats are of Ferrocrete cement-concrete and steel filler joists. There is a tiled roof to front and asphalt flats at the rear. The main contractors are Messrs. E. A. Roome and Co., Ltd., Crown Works, Urswick Road, Hackney, E.9, and the following are sub-contractors: Henry Hope and Sons, Ltd., heating and ventilation; Duncan, Watson and Co., electric lighting and bells; C. E. Welstead, Ltd., iron casements; Ratner Safe Co., Ltd., Bromley-by-Bow, strong room door and fittings; Young and Co., steelwork; Herbert Morris, Ltd., Loughborough, Lifts.

The architect is Horace Field, F.R.I.B.A., 5, Gower Street, W.C.1.

New Boys' Hostel—Lord Wandsworth Orphanage.

This institution is an agricultural college for orphan boys. The new building in course of erection provides accommodation for 40 boys, with rooms for matron and master and staff. The walls are being faced with Messrs. Collier's multi-coloured bricks, and the roofs covered with sand-faced hand-made tiles, by Messrs. Ames and Finnis. The stonework to the entrance is in Doulting stone. The drawing shows the main entrance only, but the building is an extensive one, having four separate wings, two containing dormitories, one cubicles and the other for the service staff.

Mr. E. Guy Dawber, A.R.A., P.R.I.B.A., is the architect.

Hyam, Malmesbury, Wilts.

Hyam Park Farm, near Malmesbury, is a typical Wiltshire stone farmhouse, with stabling, cow-houses, barn and walled farmyard. The house has already been altered and improved, and now further extensions and adaptations are being undertaken to complete its transformation into a small country house. The old stockyard and cow-houses are being converted into hunting stables, and the open yard and cow byres will eventually become a garden court with a cloistered walk.

Messrs. Forsyth and Maule, FF.R.I.B.A., are the architects.

New Premises at Doncaster for the Westminster Bank, Ltd.

These important banking premises, of which an exterior view and description were published in THE BUILDER on May 22, 1925, are now approaching completion. The banking hall, of which a view is now published, consists of a large central area, 90 ft. long, 45 ft. wide and 45 ft. high. In this space are arranged the counters, desks, etc., at which the business of the bank is conducted. On each of the principal sides is an aisle, separated from the central area by a colonnade. The ceiling and other decorative features are of fibrous plaster, and the walls are finished in Parian cement. The dado is of Nabresina marble, with cappings and plinth of Belgian fossil. The counters and desks will be constructed of mahogany, and the floor covered with rubber paving.

The general contractors are Messrs. J. T. Wright and Sons, of Leeds, and the following are sub-contractors: G. and A. Brown, decorative plaster work; Fenning and Co., marble work; Waring, Withers and Chadwick, electrical installation; Waygood-Otis, bullion lift; Wm. Bellerby, Ltd., York, counter and other fittings; Northern Rubber Co., of Retford, rubber paving; N. F. Ramsay and Co., Newcastle and London, bronze book racks and light standards for desks.

The architects are Messrs. Brierley and Rutherford, of York.

The Chantry Bridge, Rotherham.

The new bridge at Rotherham has been planned to obviate the difficult crossing afforded by the mediæval bridge, while at the same time preserving the old Chantry Chapel unaltered. It was therefore decided to retain part of the old bridge adjoining the Chantry as a footway, connected with the new bridge. The new bridge is in one span of about 94 feet, in reinforced concrete, 60 feet wide between parapets. The latter are in stone to harmonise with the old stonework, and the face of reinforced concrete (of a light brown colour) is finished with a fine gritted face. The new bridge, and alterations to the old bridge, have been designed by Sir Reginald Blomfield, R.A., Litt.D., in collaboration with Mr. Vincent Turner, A.M.Inst.C.E., Borough Engineer of Rotherham.

Masonic Peace Memorial.

The commission for this work was won in competition by Messrs. Ashley and Newman, whose premiated design was illustrated in our issue for June 4, 1926, when a review of the competition was also given.

Rhodes House, Oxford.

This building is now in course of erection from the designs of Sir Herbert Baker, A.R.A., architect, and the builders are Messrs. Martin, Ltd., of Northampton. At a later date we hope to illustrate this important building more adequately.

Stratton House, Piccadilly.

Stratton House will have an extensive frontage to Piccadilly, and an unobstructed

(*Continued on page* 732.)

U.A.I.
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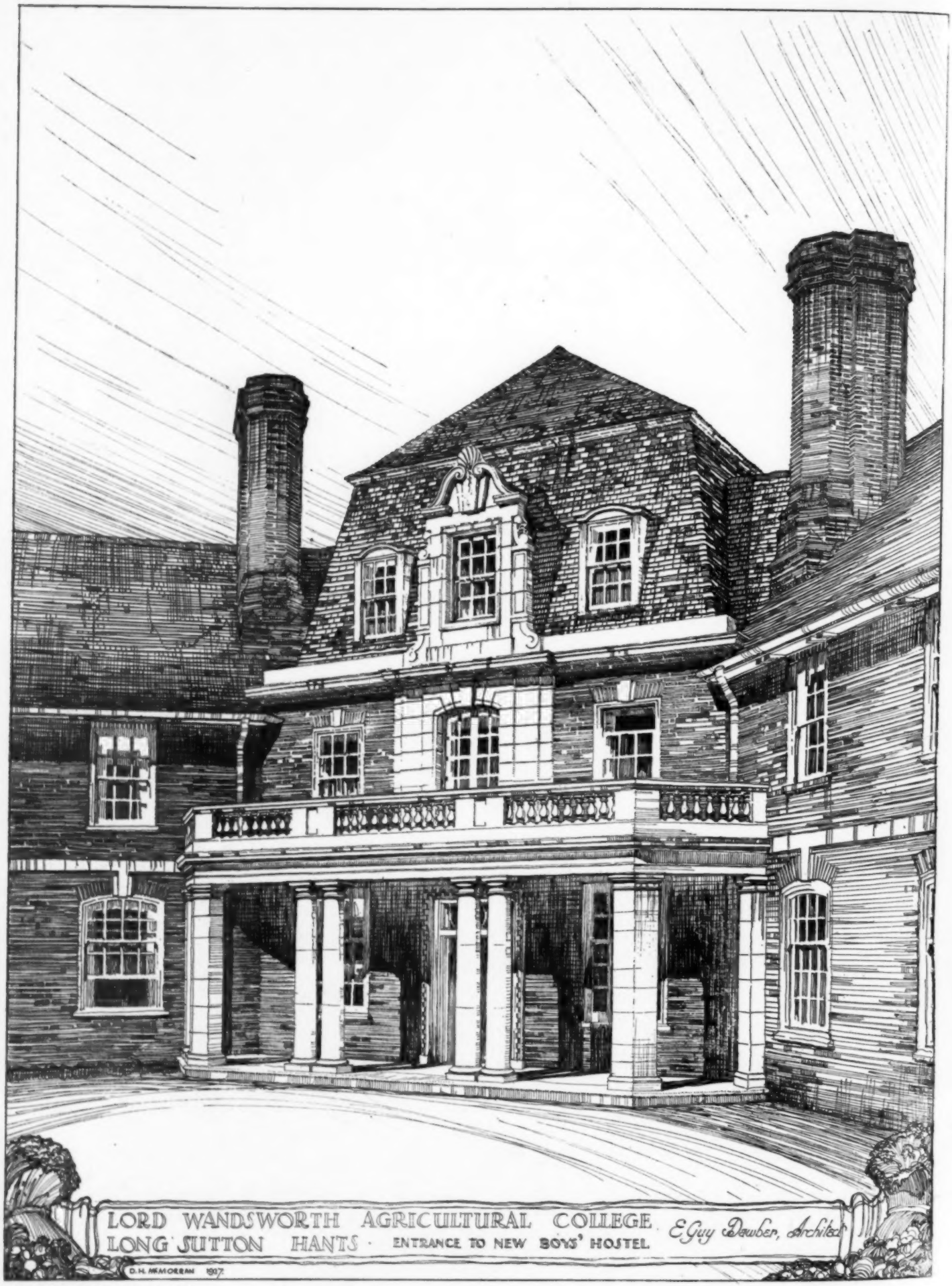
MICH.


LORD WANDSWORTH AGRICULTURAL COLLEGE
LONG SUTTON HANTS · ENTRANCE TO NEW BOYS' HOSTEL
E Guy Dawber, Architect
D.H. MEMORRAN 1927

ROYAL ACADEMY EXHIBITION, 1927.

MR. E. GUY DAWBER, A.R.A., P.R.I.B.A., Architect.

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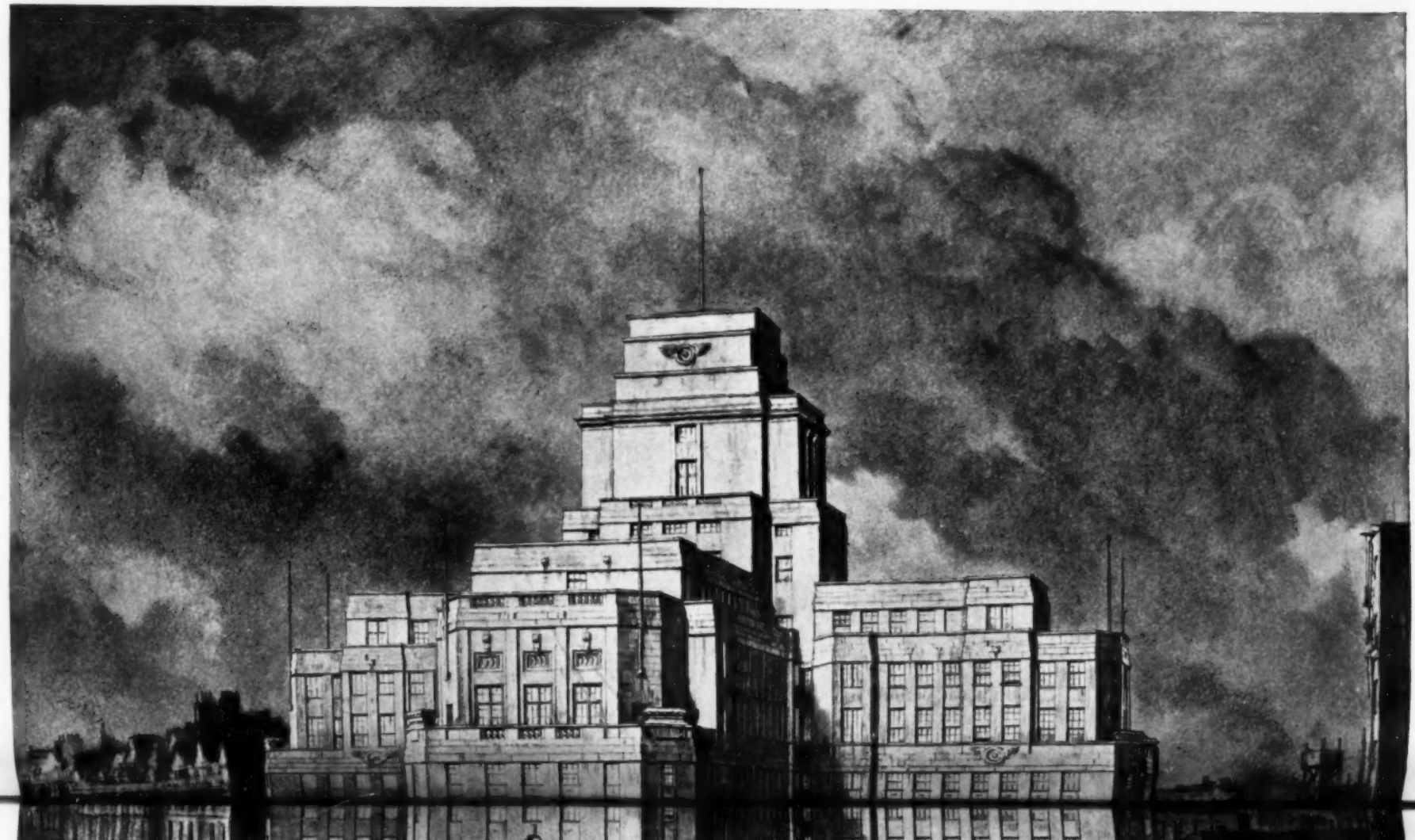


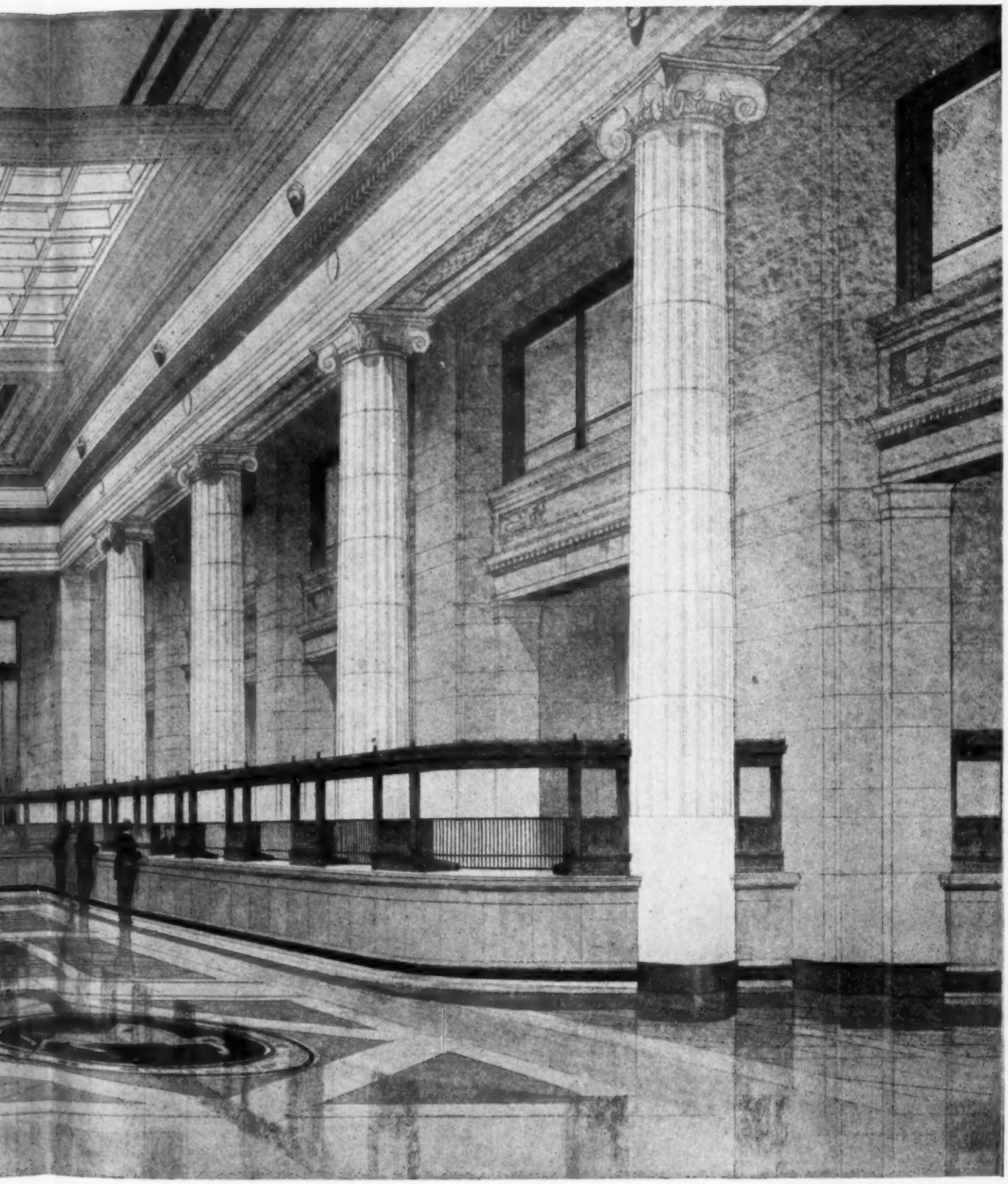
NEW OFFICES IN BROADWAY FOR THE LONDON ELECTRIC RAILWAYS
ADAMS, HOLDEN & PEARSON, F.F.R.I.B.A., ARCHITECTS, 9 KNIGHTSBRIDGE, HYDE PARK CORNER, S.W.1.

ROYAL ACADEMY EXHIBITION, 1927.

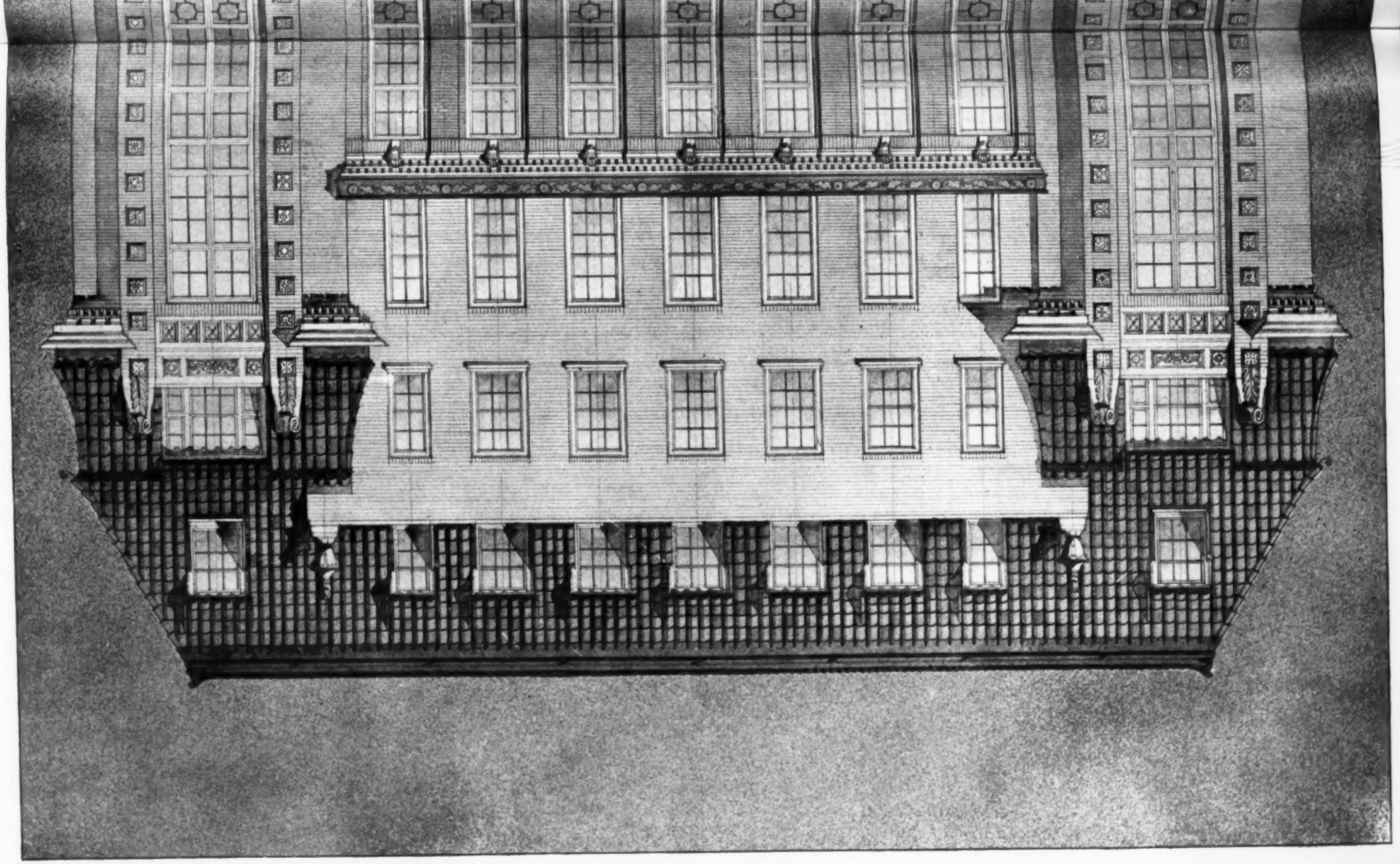
MESSRS. ADAMS, HOLDEN & PEARSON, FF.R.I.B.A., Architects.

ROYAL ACADEMY EXHIBITION, 1927.

Head Office, Lloyds Bank, Ltd., Cornhill and Lombard Street, E.C. : Banking Hall. SIR JOHN J.



Sir John J. Burnet, R.A., & Partners, and Messrs. Campbell Jones, Sons & Smithers, Associated Architects.



ST KATHERINE COLEMAN HOUSE FENCHURCH STREET E.C.

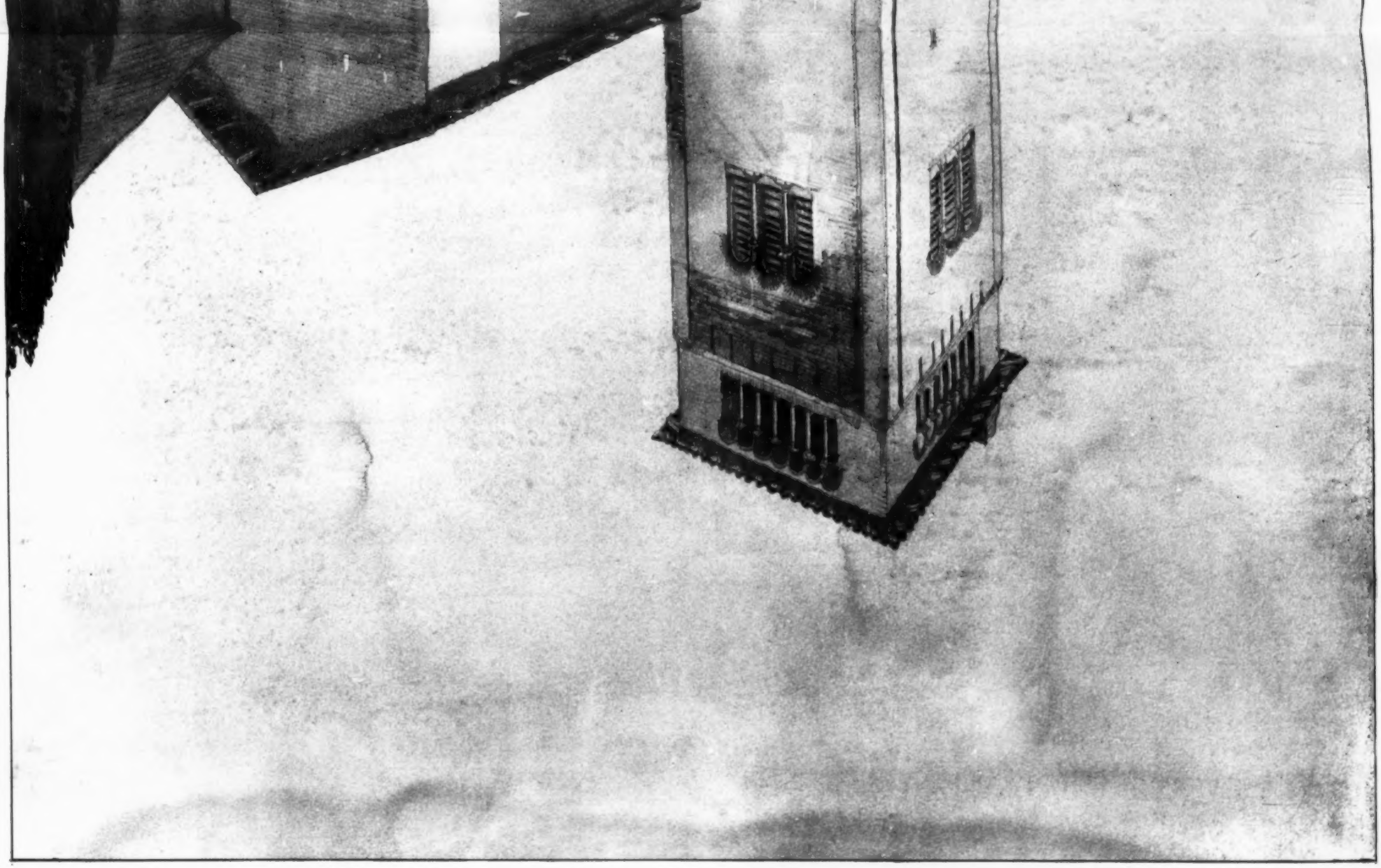
Royal Academy Exhibition, 1927.

Mr. E. G. W. Souster, F.R.I.B.A., Architect.
Façade by Messrs. Collcutt & Hamp, F.R.I.B.A.

Royal Academy Exhibition, 1927.

PROPOSED NEW FRONT FOR THE ARMY & NAVY CO-OP
Sir Aston Webb, PP.R.A., and Mr. Maurice

& NAVY CO-OPERATIVE SOCIETY, VICTORIA STREET, S.W.
d Mr. Maurice E. Webb, F.R.I.B.A., Architects.



Royal Academy Exhibition, 1927.

PROPOSED CATHOLIC CHURCH, ASHFORD, MIDDLESEX.

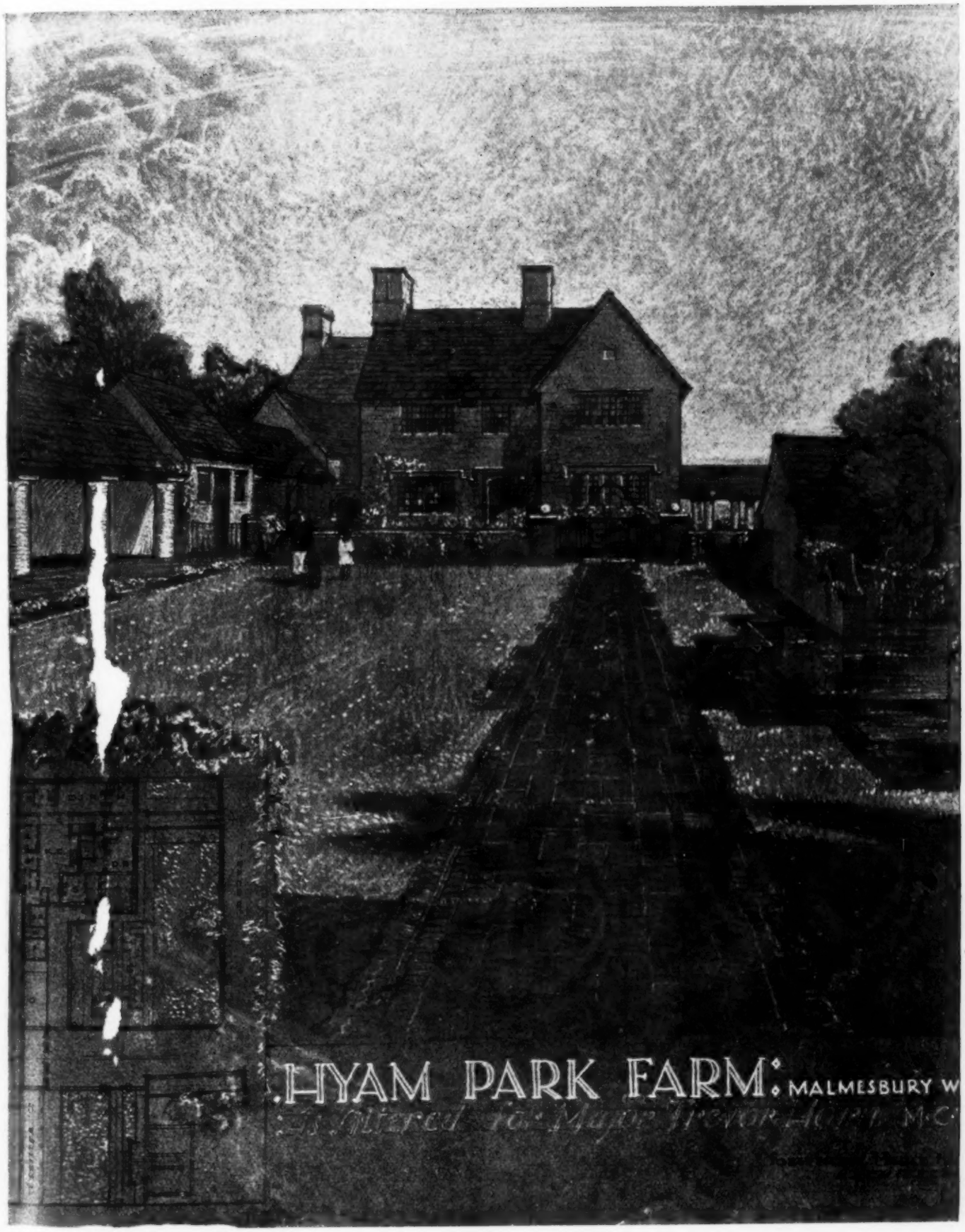
Sir Giles Gilbert Scott, R.A., Architect.

ROYAL ACADEMY EXHIBITION, 1927.

Department of Anthropology, University College, London: Vestibule and Courtyard.

MESSRS. RICHARDSON & GILL, FF.R.I.B.A, Architects.

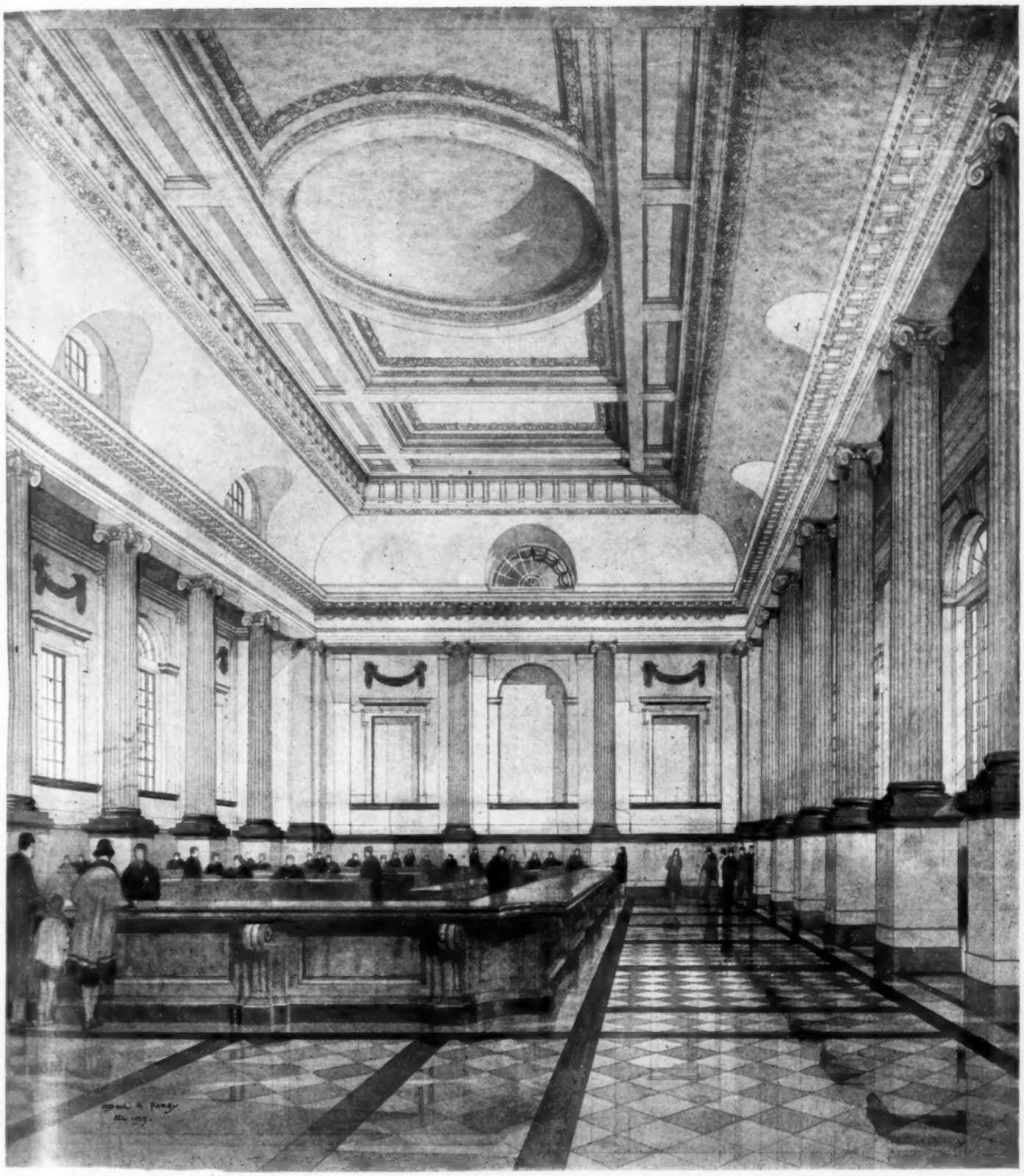
UNIV. OF MICH.



ROYAL ACADEMY EXHIBITION, 1927.

MESSRS. FORSYTH & MAULE, FF.R.I.B.A., Architects.

UNIV. OF ILL.

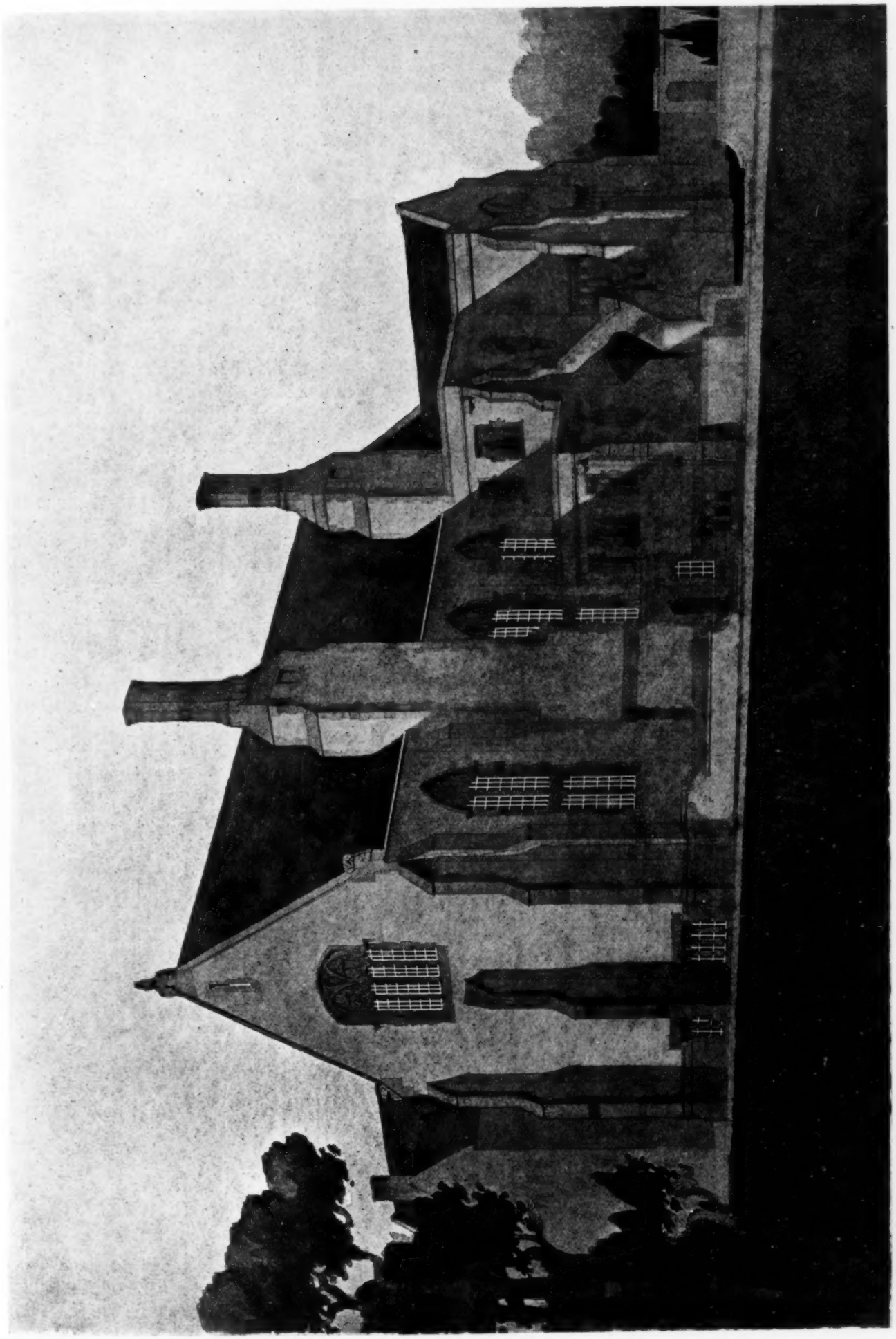


ROYAL ACADEMY EXHIBITION, 1927.

New Premises at Doncaster for the Westminster Bank, Ltd. : Banking Hall

MESSRS. BRIERLEY & RUTHERFORD, F.R.I.B.A., Architects.

UNIV. OF ILL.

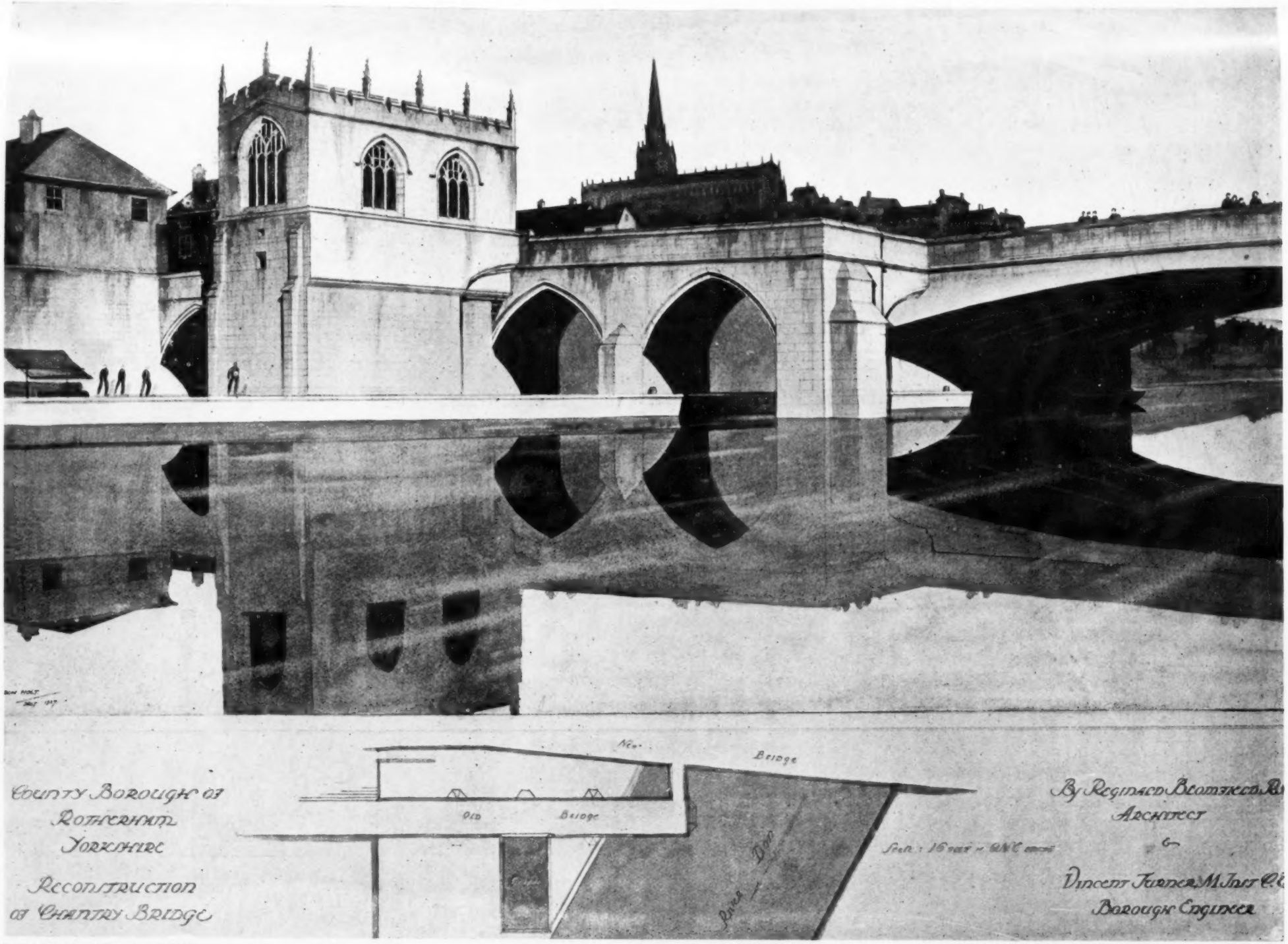


Church of St. Mary and St. Thomas, Gorton, Manchester

Mr. Walter Tapper, A.R.A., F.R.I.B.A., Architect.

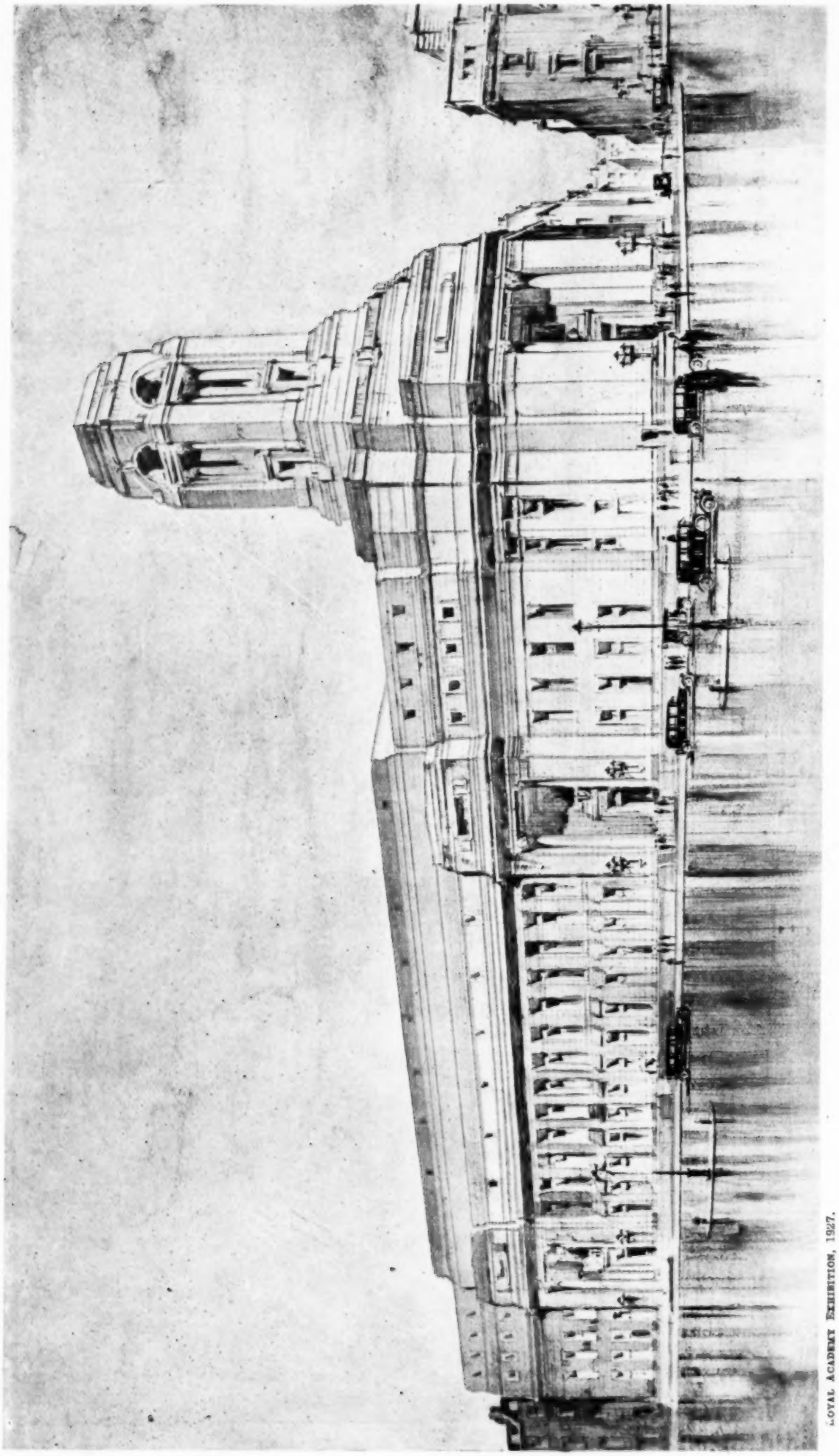
Royal Academy Exhibition, 1927.

UNIV. OF MICH.



Royal Academy Exhibition, 1927.

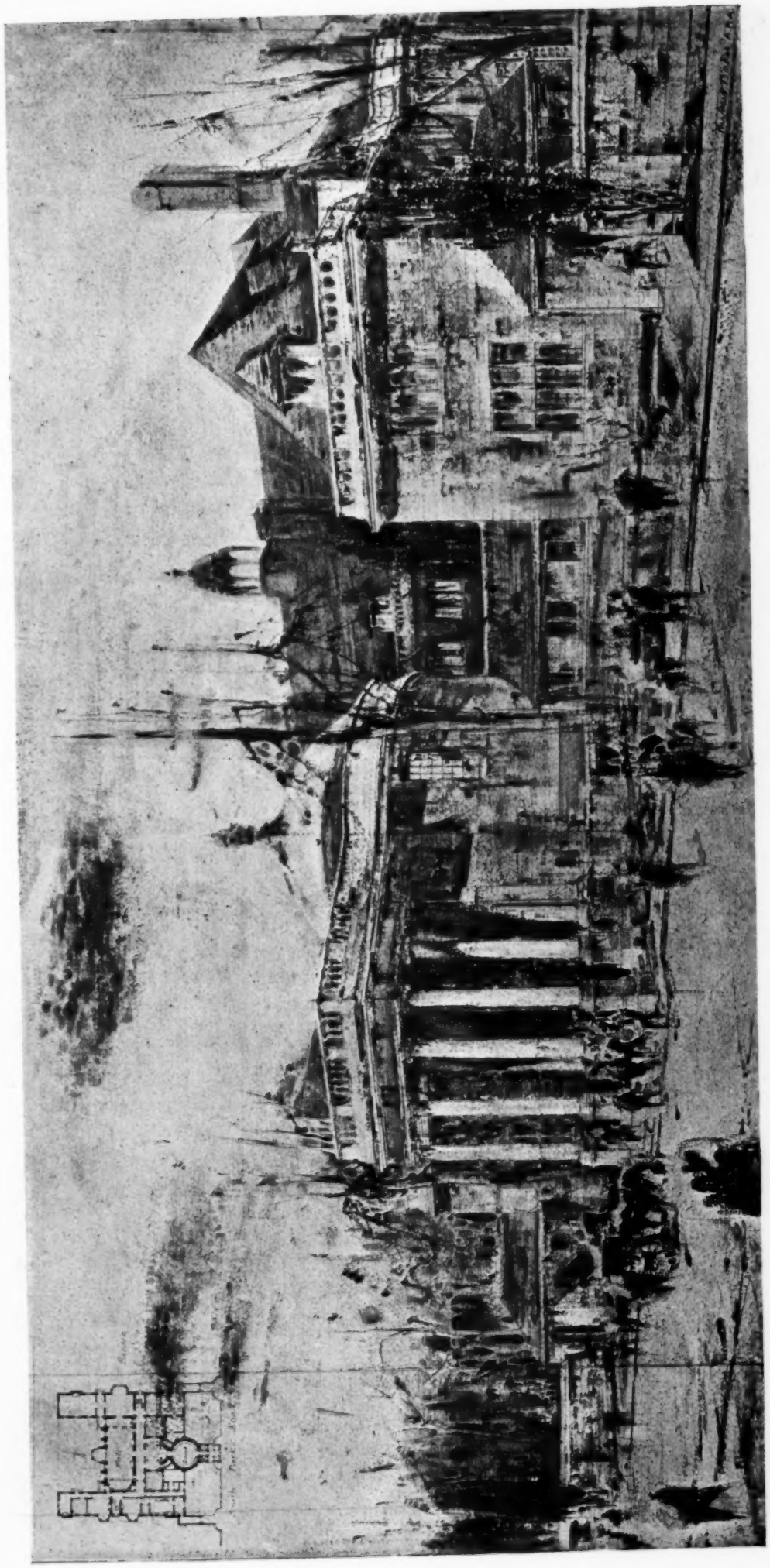
Reconstruction of the Chantry Bridge, Rotherham. Sir Reginald Blomfield, R.A., F.R.I.B.A., Architect, in collaboration with Mr. Vincent Turner, A.M.Inst.C.E., Borough Engineer.



ROYAL ACADEMY EXHIBITION, 1927.

Masonic Peace Memorial, Great Queen Street, London

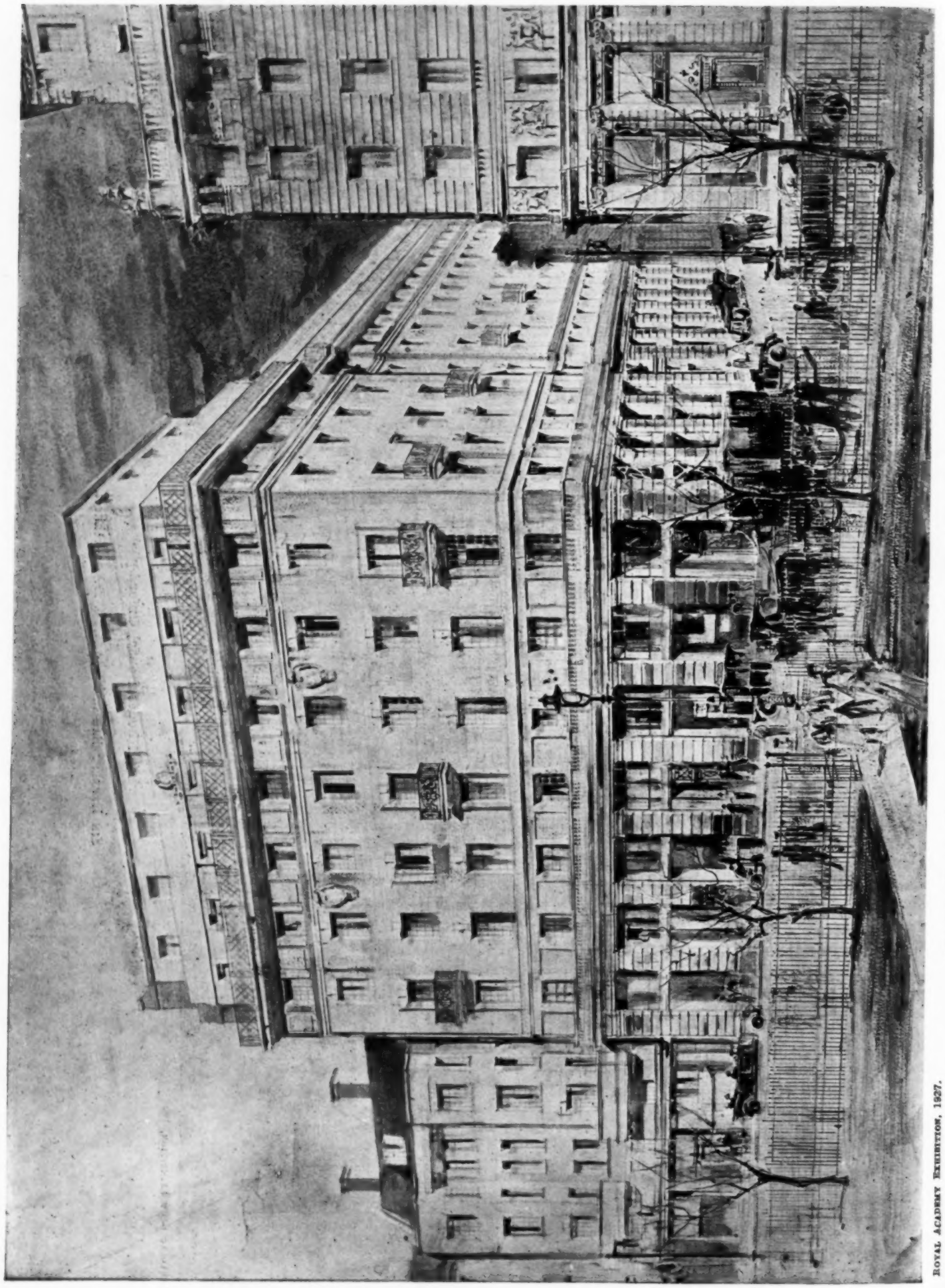
MESSRS. H. V. ASHLEY and WINTON NEWMAN, F.F.R.I.B.A., Architects.



Rhodes House, Oxford.

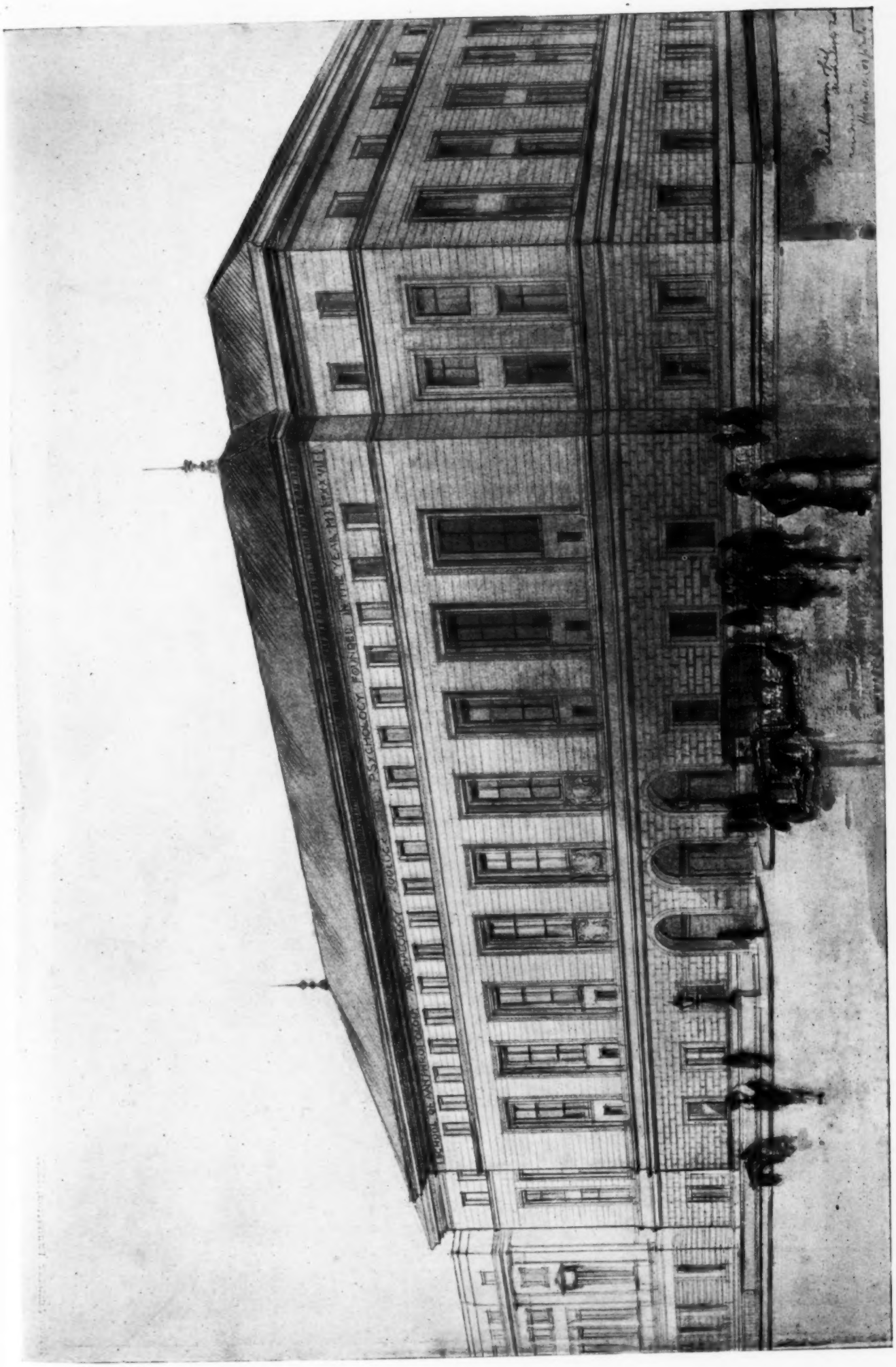
Sir Herbert Baker, A.R.A., F.R.I.B.A., Architect.

Royal Academy Exhibition, 1927.



ROYAL ACADEMY EXHIBITION, 1927.

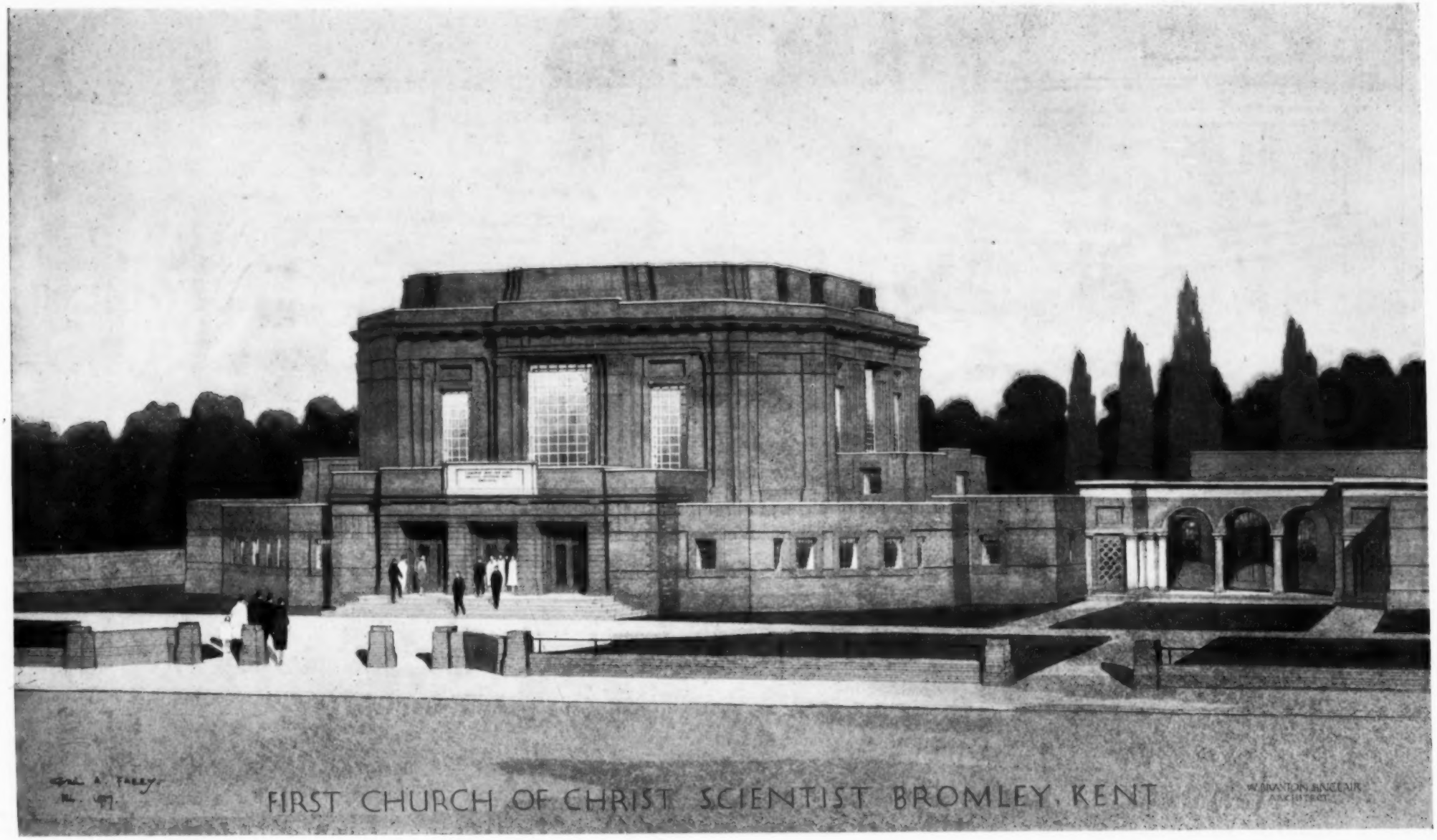
Stratton House, Piccadilly, W. Mr. W. Curtis Green, A.R.A., F.R.I.B.A., Architect.



Department of Anthropology, University College, London.

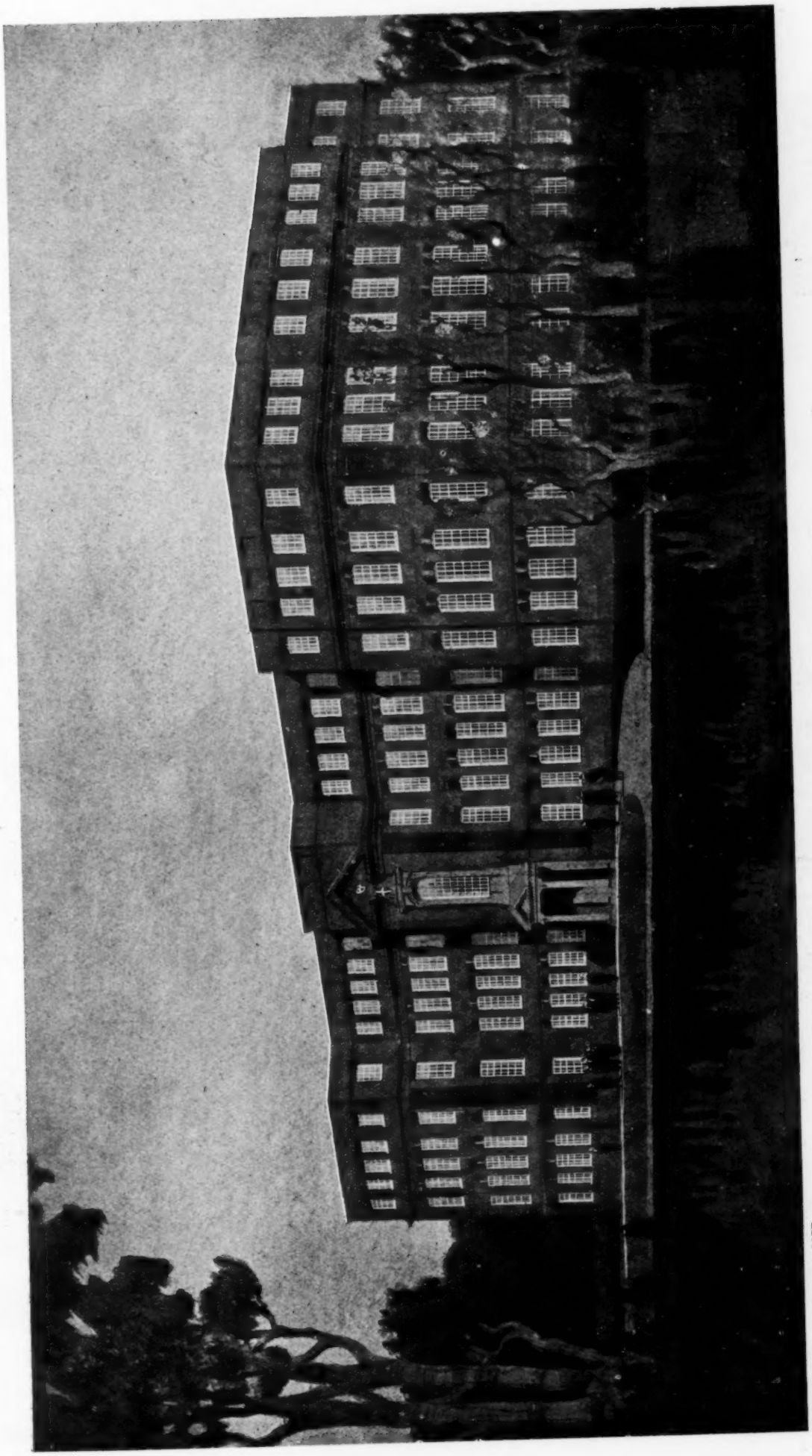
Messrs. RICHARDSON & GILL, FF.R.I.B.A., Architects.

Mr. W. CURTIS GREEN, A.R.A., F.R.I.B.A., Architect.
Stratton House, Piccadilly, W.



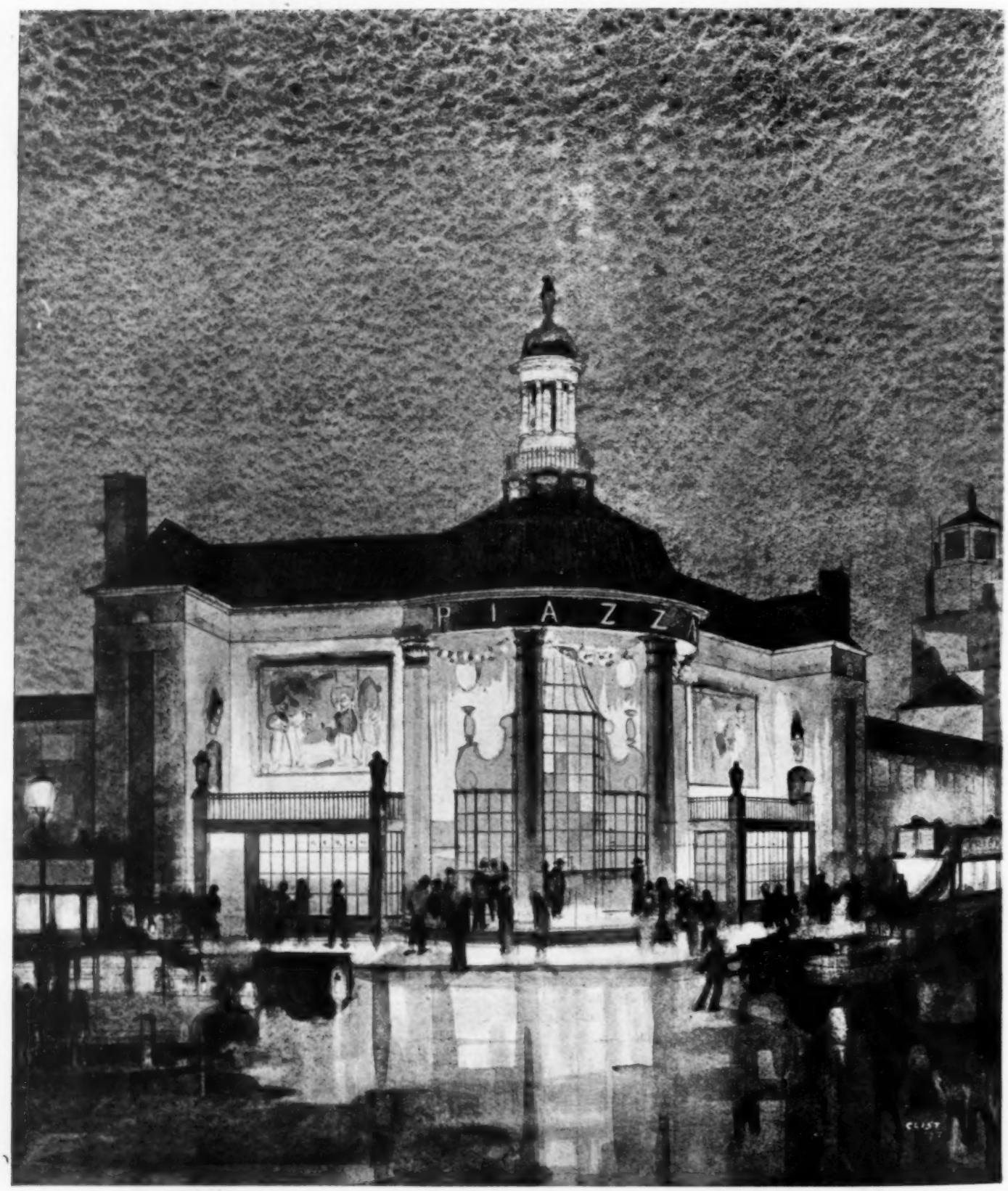
ROYAL ACADEMY EXHIBITION, 1927.

Mr. W. BRAXTON SINCLAIR, F.R.I.B.A., Architect.



New School of Pathology, Cambridge University.
Mr. E. P. Warren, F.S.A., F.R.I.B.A., Architect.

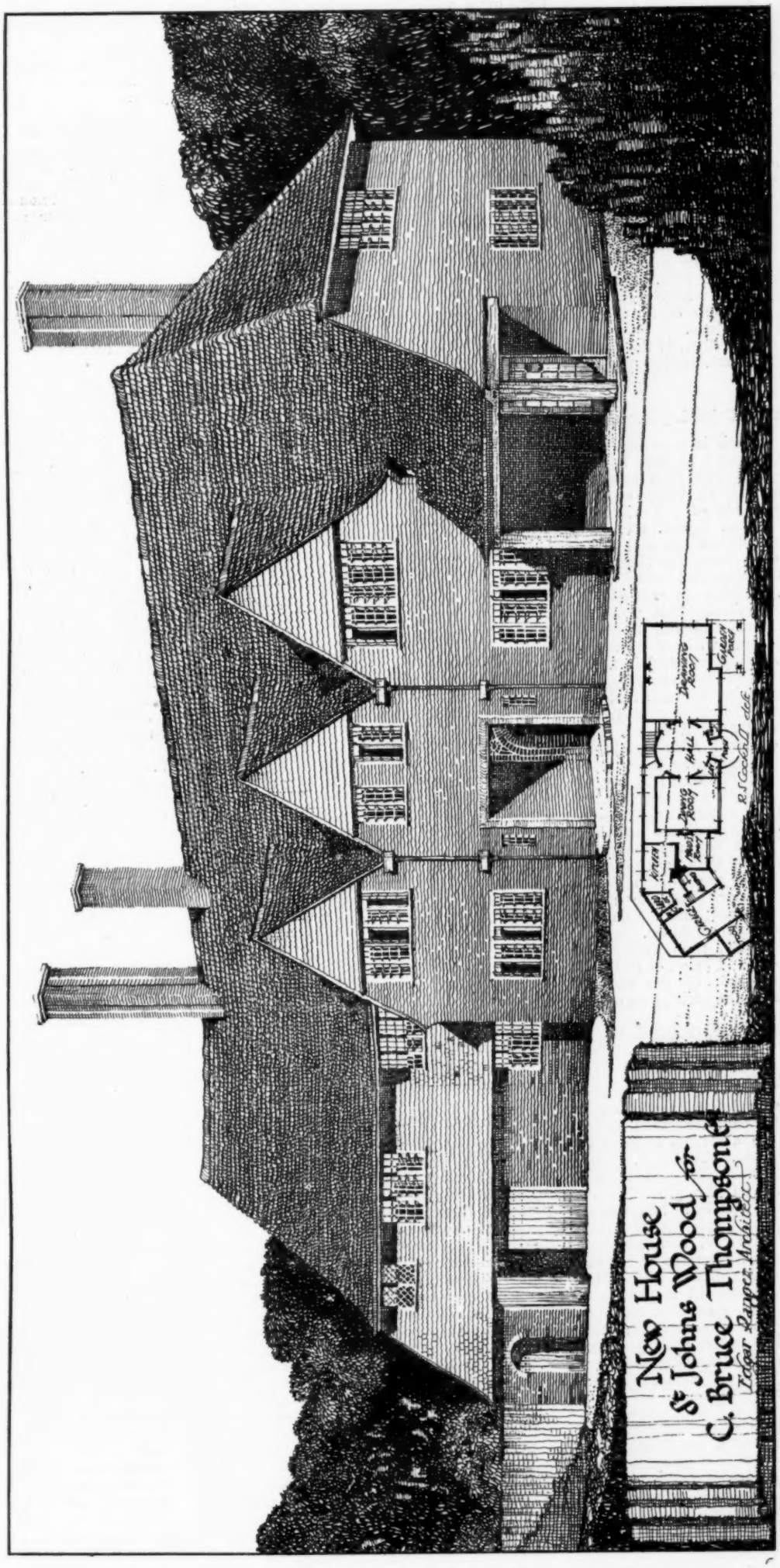
Royal Academy Exhibition, 1927.



Royal Academy Exhibition, 1927.

Cinema at Fulham

Mr. Clough Williams-Ellis, Architect.



Royal Academy Exhibition, 1927

Mr. Edgar Ranger, Architect.

ILLUSTRATIONS

(*Continued from p. 722.*)

view over the Green Park looking south, the east front to Stratton-street and the west overlooking Bolton-street. The ground floor will be used for banking and business purposes, and the whole of the upper floors will be built as flats having large airy rooms, many of them with balconies and with an unusual number of bed and bath rooms. The plant for heating, hot and cold water supply, etc., will be arranged in a sub-basement. The flats will be built of fireproof construction throughout, with central heating on the panel system, in addition to open fireplaces and electric fires, and the modern systems of gas and electric cooking arrangements. The elevations of the building will be in Portland stone.

Mr. W. Curtis Green, A.R.A., is the architect, and the builders Messrs. Holloway Bros. (London), Ltd.

First Church of Christ, Scientist, Bromley.

The site for this church is a corner one, and the building is situated so that it will be seen from all sides. The plan adopted is semi-octagonal, with small wings on the cardinal sides. The whole of the administrative offices, cloakrooms, foyers, etc., are provided around the audience hall and to be treated externally as a base for the main structure. The Sunday-school wing is a subordinate feature, to form an anti-climax to the design. The audience hall provides seating for 500 persons and the Sunday-school for 250 children, with five class-rooms. The chief building material is 2 in. hand-made bricks, in multi-coloured greys and light reds. The design depends entirely for its interest on the handling and treatment of the brick work, and all the classical details are worked out with tiles and brick courses to provide the necessary proportions of the various features. The roof is a flat, of concrete, steel and asphalt, and the interior is finished with a plaster star-shaped panel ceiling. The floor of the audience hall has a slight slope of 1 in 15 towards the platform, and is to be covered with cork parquet flooring. French stone of the Hopton Wood variety is to be employed for the main entrance steps and approach, and for dados, skirtings and entrance furnishings. The contractors carrying out the work are Messrs. T. H. Adamson and Sons, of Putney, and the complete contract of the church building without the Sunday-school amounts to £18,045.

Mr. W. Braxton Sinclair, F.R.I.B.A., is the architect.

School of Pathology, Cambridge.

This building is now being erected on a site in Tennis Court Road, for the University of Cambridge, the architect being Mr. Edward Warren, F.S.A., F.R.I.B.A. Its purpose is essentially scientific, and accommodation is provided on the ground floor for research rooms, chemical laboratory, X-ray room, micro-photography, cold store, centrifuges, instrument room, etc., a class-room, also boiler room, fuel stores and lavatories; the centre bay contains the staircase, and an electric goods lift is provided. On the first floor a large classroom occupies the whole of the north-west wing; the centre block contains research and other rooms, while the north-east wing contains both a small and a large lecture theatre and a museum. The second and third floors contain research rooms and other specialist departments, the library being on the second floor. The external walls are faced with Messrs. S. and E. Collier's selected dark "Old English" hand-made facing bricks 2¾ in. thick. The entire main cornice is of specially moulded brickwork, together with the cills and plinth. The rusticated quoins and arches, etc., are picked out in selected red coloured brickwork. The stonework to the several features, such as entrance doorways, keystones to arches over windows, parapet coping, etc., is in Clipsham stone. The building is covered with an asphalt flat, upon which are various skylights for lighting and ventilation. The floors and staircase are of reinforced concrete throughout. The general contractors are Messrs. Coulson and Son, of Cambridge, and the following are sub-contractors: Diespeker and Co., Ltd., reinforced concrete; A. D. Dawnay and Sons, Ltd., steelwork; John H. Fye, metal casements; Penrose Lifts, Ltd., lift; Rosser and Russell, Ltd., heating and hot water supplies.

Cinema at Fulham.

This cinema is designed to hold 2,000 persons. It is fan-shaped on plan, so as to secure the maximum number superior (*i.e.*, far-back) seats. There will be practically no modelled ornament inside, but "atmospheric" decoration, as in certain recent American examples. The materials will be brindled facing bricks, "tapidorous" dressings and columns, and dark-blue glazed pantiles. There will be a great gilt-barred window in the porch with green and magenta curtains within and lemon-coloured lighting in the foyer.

Mr. Clough Williams-Ellis is the architect.

Other Illustrations.

We also illustrate this week the following R.A. drawings:—Church of St. Mary and St. Thomas, Gorton, Manchester (Mr. Walter Tapper, A.R.A., architect), and New House at St. John's Wood (Mr. Edgar Ranger, architect).

SOCIETIES AND INSTITUTIONS

LEEDS AND WEST YORKSHIRE ARCHITECTURAL SOCIETY.

The 51st annual meeting of this society was held recently at Leeds. The society has a membership of 258, including honorary members. The following officers and Council were elected for the session 1927-28:—

President: Col. Albert E. Kirk, O.B.E., A.R.I.B.A.

Vice-Presidents: Victor Bain, A.R.I.B.A., F. L. Charlton, A.R.I.B.A.

Hon Treasurer: Wm. Whitehead, A.R.I.B.A

Hon. Librarian: F. W. H. Allison, A.R.I.B.A.

Hon. Secretary and Representative R.I.B.A. Council: T. Butler Wilson, F.R.I.B.A.

Members of Council: Douglas Bowman. Norman Culley, F.R.I.B.A., J. E. Stocks, J. F. Walsh, F.R.I.B.A., G. H. Foggitt, A.R.I.B.A., A.R.C.A., Joseph Addison, M.C., A.R.I.B.A.

MIDLAND TOWN-PLANNING COUNCIL.

At the annual meeting of the Midland Joint Town-Planning Advisory Council, at the Birmingham Council House, on April 28, Alderman Talbot (Birmingham) was re-elected chairman and Mr. H. H. Humphries, honorary surveyor. The report of the General Purposes Committee was presented by Alderman Kenrick (West Bromwich), and approved. Councillor Brassington submitted the joint report of the Regional Survey and Arterial Roads Committees, which was approved, and the report of the Finance Committee was also adopted. A report was received in relation to the railway bridge over Alvechurch-road, near Barnt Green Station. Correspondence has taken place with the L.M. and S. Railway Company, the Ministry of Transport, and other authorities, with a view to the provision of a bridge of greater span, but the negotiations have not succeeded, and the bridge is now being reconstructed in accordance with the provisions of the Railway Company's Bill, namely, 25 feet in span. Indicating suitable lines of arterial roads of the future within the regional area, the committee mentions adaptations of existing main, secondary, and district roads from Coventry to Stourbridge, Coventry to Worcester, Leicester to Worcester, East Birmingham to Leicester.

SOCIETY FOR PROTECTION OF ANCIENT BUILDINGS.

The Lord Mayor presided at the Mansion House over the 50th annual meeting of the Society for the Protection of Ancient Buildings.

Lord Crawford, in moving the adoption of the report, said that the meeting marked a special occasion, for it was their 50th anniversary. The principles upon which the society was founded were based on experience and common-sense and on those great ideals which must appeal to all who were proud of their native land and its achievements. Half a century ago destruction of our English buildings was proceeding at an appalling speed. They had only to look at topographical maps and prints of that period to realise what a wealth of old construction the country possessed of which we were now deprived. Then, too, the repair of old buildings, when necessary, was carried out in a most careless and perfunctory fashion. They were injured, sophisticated, disfigured and destroyed in the process. It was always thought justifiable to make a forgery of some original style in order to make a new building coalesce and harmonise with the old. We were still faced with many of the dangers and difficulties which prevailed then.

For 50 years the society had been pressing its aims with great activity, and could look back over the period with a sense of satisfaction that principles laid down half a century ago were now accepted all over this country and, indeed, all over Europe as well. We had led the world in the art of repair and conservation. It was universally recognised that, where a building in disrepair was to be strengthened in order that it might continue to fulfil its mission for future ages, the work, when carried out on the principles laid down by the society, was better done here than anywhere else in Europe. He could say with confidence that the methods of the Office of Works were in the direction of sacrificing nothing of old work.

Sir Hugh Bell seconded the motion, which was carried unanimously.

The Lord Mayor said London possessed little to show for its 2,000 years of known history. There was still a part of the Roman wall built in the fourth century, but of the long succession of buildings between that time and the Great Fire in 1666 there was an inadequate representation—only the Tower, St. Bartholomew's, Smithfield, and the crypt of Bow Church. In the latter part of the last century ten of Wren's churches were destroyed. That others, recently threatened, had been saved was proof that the ideals of the society were increasingly acceptable to public opinion.

ARCHITECTURAL ASSOCIATION OF IRELAND.

The Architectural Association of Ireland, meeting on April 25 at 8, Merrion-square, Dublin, had before it the report for the session 1926-1927, which stated that the record of the year's work was very satisfactory, and that 21 new members had been elected during the session, making a total of 155. The Downes Bronze Medal was awarded to Captain Henderson, and the Architectural Association Prize to Mr. T. Carberry.

Mr. Sedgwick Keatinge, in the course of his valedictory address, said that there was one thing that he would like to say to those architects who had pupils in their offices who were attending the studio and the lectures at the National University, and that was that this system of training students was the best method by far that the Architectural Association of Ireland had taken up. However, to be a success the students must attend at the University regularly, and he asked the members to make it possible for their apprentices to leave their offices at the hours laid down in the programme, not only for the good of the student but for the good of the Architectural Association. If the numbers were not kept up at the University the old class system would have to be resumed.

Following are notes from the minutes of the Council for April 11th:—

The Royal Gold Medal.—The Council were informed that the King had approved the award of the Royal Gold Medal to Sir Herbert Baker, A.R.A.

The Registration Bill.—The result of the debate on the Second Reading of the Registration Bill in the House of Commons was formally reported to the Council, who passed a very hearty vote of thanks to Sir Clement Kinloch-Cooke and the chairman and members of the Registration Committee.

The Preservation of Old Bridges.—On the recommendation of the Art Standing Committee a grant of £100 was made to the S.P.A.B. Special Bridges Fund

Paper on "The Moorish Architecture of North Africa."—It was decided to invite Mr. Arthur J. Davis to read a paper on "The Moorish Architecture of North Africa," this session.

The Bath Corporation Act, 1925.—It was decided to print Clause 128 of the Bath Corporation Act, known as the "Bath Clause," in the journal for the information of members.

Annual Service for Art in Westminster Abbey.—It was decided to give the cordial support of the Institute to the arrangements made by the Royal Academy for the holding of an annual service for art at Westminster Abbey.

Visit of Danish Architects.—Permission for the use of the galleries was granted to the Architectural Association for the dance to be held on May 27th, in honour of the Danish architects visiting England. It was also decided to invite the Danish architects to meet the President and Council at the Exhibition of Modern British Architecture.

Examination Results.—The Board of Architectural Education reported the following results:—

The Special Examination. Singapore: Examined, 1; passed, 1; relegated, 0.

The Intermediate and Final Examinations. Cape Town: The Intermediate Examination: Examined, 5; passed, 3; relegated, 2. The Final Examination: Examined, 2; passed, 2; relegated, 0.

List of Examinations recognised for the Probationership.—It was decided to make history and geography alternative subjects in the list of subjects required to be covered by the certificates recognised for the Probationership.

The School of Architecture. Leicester College of Arts and Crafts.—Recognition for exemption from the R.I.B.A. Intermediate Examination, under the usual conditions, was granted to this school for its three years' full-time day course.

The Victory Scholarship, 1926-1927 Competition.—It was decided to grant a Certificate of Honourable Mention to the author of the drawings submitted under the motto "Sea."

Presentation of Prizes at the R.I.B.A.—It was decided to institute certificates to be presented to the following prize-winners at the annual presentation of prizes:—R.I.B.A. (Henry Jarvis) Student (British School at Rome). R.I.B.A. (Archibald Dawnay) Scholars. R.I.B.A. (Anderson and Webb) Scholar at Cambridge University School of Architecture. R.I.B.A. (Henry Jarvis) Student at the Architectural Association. R.I.B.A. (Howard Colls) Travelling Student at the Architectural Association. R.I.B.A. Donaldson Medallist at the Bartlett School of Architecture, University of London.

The Arthur Cates Prize.—It was decided to approve the proposal of the Charity Commissioners that the amended scheme for the Arthur Cates Prize should provide for the offer of an annual prize for the Promotion of the Study of Architecture, more especially in relation to the application of geometry to vaulting, etc. (*i.e.*, the object especially indicated by the founder), with a proviso that if in any year (either owing to absence of competitors or the fact that no work of sufficient merit is submitted) no prize is awarded, then the following year the prize shall be offered in connection with some other architectural subject, *e.g.*, town planning. The scheme would further provide that the income of the charity unexpended in any year should be added to the capital endowment, so that the value of the annual prize might ultimately be augmented.

The R.I.B.A. (Henry Saxon Snell) Prize.—It was decided to amalgamate the R.I.B.A. (Henry Saxon Snell) Prize with that offered by the Architectural Association, and to institute a Henry Saxon Snell Scholarship, to be offered every third year, and administered by a Joint Committee of the R.I.B.A. and the Architectural Association, the income of the two funds being amalgamated for the purpose of providing the Scholarship Fund. The Council of the Architectural Association have agreed to this proposal.

Constitution of the Board of Architectural Education.—The officers of the Board of Architectural Education for the ensuing session were appointed as follows:—Chairman, Mr. Henry M. Fletcher; Vice-Chairmen, Mr. L. Sylvester Sullivan, Chairman of Examinations Committee; Mr. Howard Robertson, Chairman of Schools Committee; Mr. Robert Atkinson, Chairman of Prizes and Scholarships Committee; Mr. W. H. Ansell, Hon. Secretary.

It was decided that the two Past-Chairmen serving immediately prior to the present Chairman should be ex-officio members of the Board.

The Victory Scholarship Medal.—It was decided to institute a medal, to be awarded with the Victory Scholarship, in commemoration of members of the Society of Architects who fell in the War. A selection of esquisse designs for the medal has been obtained from the recognised Schools of Architecture, and that prepared by Mr. E. B. O'Rorke, of the Architectural Association School of Architecture, has been selected as most suitable. The generous offer of a former member of the Society of Architects to defray the cost of making the dies for the medal has been accepted.

Lectures on Architecture for Workers in the Building Trades.—The Board reported that in accordance with the suggestion approved by the Council on April 19th, 1926, they have held two series of lectures on architecture for workers in the building trades. During the discussions the following points were brought out:—

(1) That more interest would be taken by the craftsmen in the buildings upon which they were engaged if models of the proposed buildings were placed upon the works for their inspection while the buildings were in progress, and that complete plans and drawings might be available in order that the men could see how the work they were doing fitted into the whole structure.

(2) That craftsmen should be given more liberty to use their discretion in the execution of their particular crafts.

(3) That the architect and craftsman should get into closer personal touch with each other.

(4) That architects might take building apprentices over their works while in progress, and at completion.

It was decided to approve the recommendation of the Board that steps should be taken to bring the above desires to the notice of all practising architects.

Committee on Standard Methods of Testing Small Clear Specimens of Timber.—Mr. E. H. Evans, F.R.I.B.A., was appointed as the R.I.B.A. representative on a new committee set up by the British Engineering Standards Association, to undertake the standardisation of methods of testing small clear specimens of timber.

London Building Acts Committee.—Mr. Louis D. Blanc, L.R.I.B.A., was appointed as an additional member of the London Building Acts Committee

Forms for the Appointment of Arbitrators.—On the recommendation of the Practice Standing Committee, it was decided to adopt, for future use, two forms for the appointment of arbitrators, one form to be used when the dispute is a general one, and no agreement has been made for submission to arbitration, and the other form when the dispute arises under a building contract wherein there is a submission to arbitration.

R.I.B.A. Scale of Charges.—It was decided, on the recommendation of the Practice Standing Committee, that in future a loose slip should be inserted in each copy of the Scale of Charges sent out by the Institute, intimating that members are advised to take the earliest opportunity of bringing the scale to the notice of their clients

Studentship.—The following were elected students of the R.I.B.A.:—Billiards, Harold (Leeds College of Art); Buchanan, James Wardrop (A.A.); Egan, John Edward (Passed Intermediate Examination); Fridjhon, Clement Raymond (Passed Intermediate Examination); Hunt, Henry Arthur (Northern Poly.); Lipp, Alexander (Glasgow School of Architecture); Lloyd, William Raymond (A.A.); McNeil, Patrick (Glasgow School of Architecture); Murray, James Mackie (Edinburgh College of Art); Roxburgh, Charles Wallace (Passed Intermediate Examination); Solomon, David Bowen (University of Liverpool); Westendarp, Rudolf Theodore (A.A.).

Resignation.—The following resignation was accepted with regret:—A. Ernest Lacey, L.R.I.B.A.

Applications for Election as Subscribers.—Two applications were approved.

Applications for Election as Licentiates under Section III. (f) of the Supplemental Charter of 1925.—Three applications were approved.

Maintenance Scholarships in Architecture.

The Maintenance Scholarships Committee announce that they have received a contribution of ten guineas from the Leeds and West Yorkshire Architectural Society towards the Maintenance Scholarships Fund.

The Willett Memorial.

At a recent meeting of the committee of the Willett Memorial Fund, it was reported that of the £12,000 which the committee set out to raise for the purchase of 87 acres of Petts Wood, Chislehurst, as a memorial to Mr. William Willett, the originator of "summer time," about £10,000 has now been obtained. The title deeds are to be handed over to the Public Trustee by Lord Camden on Saturday, May 21.

ROYAL SCOTTISH ACADEMY EXHIBITION

SCULPTURE

By BENVENUTO BRUNELLESCHI.

"It has been well said that no art can be classic which has not been barbaric. The movement of every school of art seems to be through a regular curve."—Lethaby.

"Something is due to the demands of the spirit after the material ones have been satisfied."—H. V. Lanchester.

The sculpture hall at the Royal Scottish Academy is again largely an attractively arranged show of busts, heads and statuettes. There are only five works of any size. With the exception of the work at the Scottish National War Memorial there seems to be little collaboration at present in Scotland between the architect and the sculptor.

This is unfortunate; to be regretted, but easily explained. Economy is the cry of the day, and architects have no choice but to cut out most of the embellishments which in former times were usually and naturally introduced into any work of public or ecclesiastical importance. Again, the system of training our sculptors in great art schools, with substantial travelling scholarships as a reward of industry, has brought about a professional status for the sculptor which has led to his being recognised as an independent artist rather than a collaborating craftsman. It is the trend of this age, and is more or less affecting all walks of life. Freedom of expression is right and good, but in any great combination of the arts in one building, nothing but chaos and confusion can result unless the underlying theme and general composition is controlled by one master mind. This is the more essential to-day when intellect and education have taken the place of tradition and inspiration.

Mr. D. H. Banner in a recent article in the "19th Century Magazine," on "The Decadence of Modern Sculpture," says some interesting and arresting things. One of which is worth quoting. "Modern sculpture absorbs the energies of few men, and not the whole mind of those: it is looked at by few; our feelings turn elsewhere more naturally." It is a laborious art, and only men of the soundest physique could long stand the strain of doing anything but busts and statuettes.

The place of honour in the sculpture hall at the Royal Scottish Academy is occupied by Mr. Alfred F. Hardiman's figure of "Peace," a large draped female figure in bronze. It is treated with an almost Assyrian or Egyptian-like severity and its distinct architectonic qualities give it an impressiveness which is so often lacking in the usual anatomically accurate rendering of the studio model. The symmetric treatment of the drapery and general pose emphasises this quality and the careful and scholarly modelling give this figure a feeling of being designed rather than posed, which is the outstanding requirement for all really fine sculpture. The hands are half uplifted, and the right holds the spray of a palm branch. The head and face are not of the naturalistic order, but may stand for some abstract ideal type of the artist's own. Whether we like the type or not it is justified on the grounds that a mere portrait head of a more or less handsome model would introduce the sensuous element which would lessen the value of the figure as a symbolic representation of "Peace."

"The Spirit of the Streams," by Mr. Gilbert Bayes, is a large female nude which is pleasing in its decorative lines. The figure is half kneeling on the left knee and half sitting with a water lily in the left hand. The lines of two kneeling deer form a decorative background to the right and left, but the decorative and realistic motifs are rather conflicting. In this figure the sensuous element in the face is justified by the title of the subject. It is well modelled and thoroughly realised.

"The Unfolding of Spring," by the same artist, is a large female figure in high relief in marble. It is compactly composed and well designed. She kneels on her left knee, and the head is resting on the right hand which is placed on the right knee. The small frieze of figures carved on the base is classical in feeling, but lacks delicacy of finish, and the scale does not harmonise with the main figure. The introduction of two scales in a work of this nature is a difficult problem, and in modern work rarely achieves the success found in classic and renaissance work.

"Me," by Mr. Percy Portsmouth, is a large nude male. It certainly expresses egotism in the most vulgar sense. He stands with legs apart and arms folded, and his face depicts the smug self-satisfaction of a victorious prize-fighter. The muscular development is somewhat excessive, and the whole aspect bacchanalian.

"King Robert of Sicily," by Mr. G. H. Paulin, is a large nude seated figure with a monkey on his left knee. The figure is well-modelled, but hardly expresses its title in type or treatment.

"Pastoral," by Mr. W. Reid Dick, is one of the most beautiful works in the exhibition. It is a female head carved in Hopton wood stone. It is finely posed and subtly carved, and so restful when seen alongside the swallow's nest technique of some of the other busts.

The "Lily of the Valley," by Mr. P. Macgillivray, is also a female bust of outstanding quality. The pose and subtlety of expression is exquisite and show this artist at his best as a sculptor of noble and charming women. His "Portrait of an Artist" is also a vigorous and fine piece of male portraiture. "Eos," by the same artist, is a nude female statuette seated with left leg over the right.

"The Joy Ride," by Miss Erica Lee, is a spirited and finely balanced group of two young boys playing. One struggling to keep his balance on a mat and the other pulling. It is well composed and accomplished in modelling.

"The Head of Christ," in bronze, by Mr. Alfred F. Hardiman, is tragic in treatment, but unmistakable in subject.

"The Awakening," by Mr. Charles L. Hartwell, is a delicately modelled female nude statuette in bronze.

"The Fox and the Toad," by Miss P. M. Bone, shows a vigorously modelled group for garden sculpture in lead. It possesses those distinctly architectural qualities which we always find in this able animal sculptor's work.

"The Right Hon. J. Ramsay MacDonald, M.P.," by Mr. Jacob Epstein, is a bust of the massive type and of the swallow's nest technique. While being unmistakable as a portrait, it possesses little evidence of insight into the psychology of the sitter. The grim determination of the features lack any trace of culture or intellect.

"A Ghetto Jew" and portrait bust of Mr. J. B. Fergusson, by Mr. Benno Schotz, show great advance in this able artist's technique, and as character studies are excellent.

The late Mr. Fanindra Bose, the clever young Indian Associate, who was trained in Edinburgh and whose work was so notable for its thoroughness and the quality of its finish, is represented by two statuette groups of "Huntsman and Hound" and "The Hunter" in bronze, and a portrait bust in plaster.

Sir W. Goscombe John shows "Evelyn," a bronze female bust finely posed and modelled with subtlety and possessing charm.

Mr. W. Reid Dick's "Ann" is a delicately treated study in bronze of a child's head.

Mr. E. M. Alexander, in his bronze "Tiger" statuette, has achieved a work of distinction. It is handled in a big and simple manner, and is no mere tame study of a dweller in a Zoo. The lines of the silhouette are almost Assyrian-like in their sense of decoration. Mr. Alexander has a great gift for the handling of animals. His father, Mr. Robert Alexander, and his brother, the late Mr. Edwin Alexander, were notable as fine painters of animal subjects.

"The Autumn Dance," bronze, by Mr. C. W. Dyson-Smith, is a cleverly posed statuette of a nude female dancer.

"An Old Salt," by Mr. William Lamb, is a cleverly modelled head of an old sailor. The character is well preserved in spite of its swallow's nest technique.

"Jane," by Mr. Alfred F. Hardiman, is somewhat weird but subtle.

"Field-Marshal the Earl Roberts," by Mr. John Tweed, is a good portrait.

"Cleopatra and the Priest Harmachis," by Mr. Arthur G. Walker, a small group in white marble, has caught something of the Egyptian atmosphere.

"Illusion," bronze statuette by Mr. C. W. Dyson-Smith, is a finely balanced nude female with a ball of crystal.

Mr. H. S. Gamley is represented by a portrait bust of Mr. James L. Hughes, LL.D., of Toronto.

Miss H. Armour has a carved wood mask called "A Mood," not unlike a self portrait.

Mr. A. Carrick shows his portrait medallion of the late Lord Pentland, and another portrait medallion called "Roy," both showing skilful and searching understanding of character.

Mr. Birnie Rhind shows a statuette of "A Miner" and a portrait bust of "Kate, Daughter of Mrs. J. P. Lees."

"The Boy Scout," bronze statuette by Sir W. Goscombe John, is well posed and realistically treated.

Out of 72 exhibits in the sculpture hall, 30 are heads and busts, and most of the others are of the drawing-room statuette type. We may assume that there is a market for this kind of sculpture, but it is to be regretted that the cleavage between architecture seems to widen as the years go past. No one can very well be blamed, for in the world of art it must be admitted that what is is in a sense inevitable. Individual effort is of little avail, for, as Lethaby says, "We are helpless as individuals without the tide of custom." We are in a measure overwhelmed by the spirit of our age, which socially and economically is overpowering us. In sculpture and painting, as in architecture, our life is being reflected and crystallised, and posterity will read it as truly and clearly as we read that of Pompeii, Mesopotamia, Egypt or the Maya cities to-day.

If the general interest of the common people could be awakened, something truly great might be done, for we have many able men who might rise to unknown heights if truly great opportunities were afforded. The great mistake so far as war memorials were concerned was that they were rushed through before the mind of the nation had settled down after the war, and they were controlled by people who knew naught about sculpture except the photographic kind, with its petrified soldiers and imitation wreaths. The money was frittered away in little local tombstones, when it might have been gathered together to represent counties. The human mind seems to learn little from the lessons of history, and a like opportunity will never occur again in this generation. One thing is certain—nothing great can ever be accomplished without a fearless courage and a deeper understanding of the relation between the visible and the invisible.

ANCIENT HINDU ARCHITECTURE IN JAVA

2.—THE TEMPLES AT KALASAN AND SARI.

By W. ROBERT FORAN, F.R.G.S., F.R.A.I., etc.

During the ninth and tenth centuries there was a settlement of Hindu priests on the Prambanan plains, due east of Djokjakarta, and the ruins of their extensive temple-city now lie scattered all over the plains of Prambanan and Sorogedug. They are to-day little more than ruins, sometimes even meriting the description of rubbish-heaps. Moreover, much that half-a-century ago was seen, described and greatly marvelled at by early travellers in Java, has entirely disappeared. These relics of past skill in architecture, even seen in the present day, can give a notion of the former magnificence of this great temple-city, of the highly developed artistic sense of its ancient architects, and of the extent of the area occupied by the old city. The ruins cover an area of about four miles in breadth and nearly eight miles in length. It seems certain that these buildings were commenced during the ninth and tenth centuries, when the Kingdom of Mataram flourished in Central Java; but, most probably, the construction work was suspended in the first half of the tenth century, and many of the monuments obviously were never completed.

The temple ruins on the Prambanan Plains are far more interesting than those to be found still in existence on the Sorogedug Plains, and they are somewhat better preserved. On the Sorogedug Plains scarcely anything remains whereby one can judge their former splendour and general design; for the most part, one can only just distinguish the spot where formerly the temples had their being.

It is not really known what was the cause of the decline of the ancient Hindu Kingdom in Central Java, but a connection doubtless exists between that catastrophe and the fact that the temples were abandoned before actual completion. This was certainly the fate of the Prambanan group of temples, for instance; for at the Prambanan temple, about which more anon, it is only too patent that the ornamentation scheme was never carried to its conclusion according to the original design of the architects.

Earthquakes have caused these temples on the Prambanan and Sorogedug Plains to tumble down in confused masses of masonry. Without using either cement or mortar, the Hindu architects piled the heavy blocks of stone one upon the other; projections on the stones, fitting into grooves and cavities in the neighbouring ones, had to serve as a binding expedient. With the employment of such a crude method in building, naturally the cohesion of the slabs of stone was easily broken by an earthquake, and the resulting rubble was not unlike the contents of a gigantic "box of bricks" all promiscuously thrown together. Furthermore, the tropical vegetation, which soon commenced to batten upon the forsaken sanctuaries, performed its part in the work of devastation and wrenched apart what little had been spared by the frequent earthquakes. A large portion of such buildings as still stood erect was destroyed in the great earthquake of 1867; and, finally, came man to complete the work of destruction commenced by Nature and the elements. The ruins, which to a layman's eye were nothing but heaps of stones, were regarded in the light of quarries from which everyone was free to take materials for use on building construction of every sort and description.

In this manner, among other notable instances, a whole village at Prambanan was ringed round with a stone wall built of blocks of stone carried away from the adjacent ruins of temples. Not only the Javanese, but Europeans, have plundered these ruins and materially assisted in their disappearance; even the Dutch Government has not been guiltless in this matter. Such temples as still remain standing above ground have been despoiled almost entirely of their statues and other ornamentation, which have been dragged away by thoughtless individuals to adorn their private houses or gardens. The origin of the majority of these looted statues is no longer known. When one reads the glowing description left to us by travellers in Java prior to the great earthquake in 1867, even when one remembers what Yzerman beheld on the Prambanan Plains in 1887, and sees these ruins as they stand now, it is absolutely impossible to avoid the sad conclusion that the modern development and the present flourishing condition of Java, even within the past half century have been fatal to the valuable relics of the art of ancient Java. One can but express the hope that, now the general public is more and more perceiving the great value of these historic monuments, the days of ruthless vandalism are doomed; but, alas! this belated realisation cannot replace that which has been lost irretrievably to the present and future generations. And so it is that one is forced to trust largely to imagination to fill in the gaps of the architectural designs employed by the Hindu architects of these temples.

South Facade of Kalasan.

View of Sari' showing exterior ornamentation and Windows of Upper Chamber.

The first ruin seen on the road out from Djokjakarta is the most westerly situated of them all, that of *Tjandi* (temple) Kalasan. This ruin dates back to the earliest period of Hindu architecture, although it is not neces-

sarily the oldest temple in Central Java. There being no trace of other buildings which were erected possibly at an earlier date, it is impossible to arrive at any conclusion as to how and from what beginnings Hindu architecture developed itself in Java. In *Tjandi* Kalasan, however, their art had pretty well reached its full development. This ruined temple is considered to be among the most beautiful buildings that the Hindu craftsmen wrought in Java. It is generally believed that it was built a little prior to the Borobudur Temple—perhaps a quarter of a century earlier; and this, according to modern historical knowledge, would date it about the end of the eighth century.

Tjandi Kalasan is designed in the form of a Greek cross with projecting angles; and it contains one large central chamber and four smaller rooms, of which only the eastern one is joined to the main temple-chamber. No statues are left standing in any of these rooms. The temple itself stands upon a sub-base, which supports the foot of the temple proper after the fashion of a terrace. Little is now to be seen of this sub-base; part of it is broken away, and part is hidden and lost to view under the ground, as, in the course of the centuries since it was built, the bottom has been raised. This sub-base had the same twenty-angled form as the actual foot of the temple. The unoccupied outer edge of the sub-base made it possible for people to walk round the temple, and it measured about fifteen feet in width and must have had a parapet in its original design. Four flights of steps, one on each face of the building, led up to this encircling free space. The temple had four doorways, to each of which a stairway led; and each doorway gave admittance to a side-chamber.

On the south façade, the ornamentations are still in existence; but most of the others have suffered severely through various causes.

Part of Exterior Wall of Tjandi Sari, showing rich Ornamentation and Windows.

On both sides of the richly decorated entrance on the south side are two small niches wherein a Bodhisattwa figure is excellently chiselled in relief. In the large niches of the side surfaces there stood originally other Bodhisattwa statues, for their pedestals still can be seen. An attempt is being made to restore this and other temples in the neighbourhood, and many of the fallen slabs of masonry and carved stone figures are being collected and repaired with a view to replacement on the monument; but it looks a pretty hopeless task.

Upon the cube of the temple, which carries a richly ornamented frieze and a cornice with handsome ante-fixtures, stands the roof which is crowned with a dagob of which only the socle is now in existence. The roof formerly had three stories, separated from the body of the temple and from one another by a profiled base, and each with its own cornice. Taking a horizontal section, the lowest story also follows the twenty-angled form of the building and is decorated with niches wherein once sat Dhyani-Buddhas upon lotus-leaf cushions. There are now only three of these statues in existence. In the second story, the roof takes an eight-angled form, each side containing a niche with a Dhyani-Buddha, and on either side of the niche is a panel whereon was carved a standing figure, —probably a Bodhisattwa. The top story again had eight niches, in which also were seated Dhyani-Buddhas. Only one of these figures, however, remains in place, and the others have all disappeared. All three of these stories were crowned with garlands of dagobs.

A very short walking distance from *Tjandi* Kalasan is to be found the ruins of *Tjandi* Sari. Actually, it is very doubtful if this was ever a temple or intended as such; it is much more probable that it served, in part at any rate, as a dwelling for the priests of the *Tjandi* Kalasan. It is a one-story building, once comprising six chambers, of which there were three in the lower space and three in the upper. The floor of the upper rooms has entirely disappeared. The entrance is in the eastern façade, and gives access to the centre of the lower chambers. The latter is connected with the side-chambers, each of which has two windows. The entrance was reached by a stone stairway, now entirely disappeared, which led up from a terrace. There was once also an encircling parapet, as at Kalasan, which apparently had a parapet in its original design. No exploration of this terrace has yet taken place.

The three lower chambers all exhibit traces on the back wall of former altars, which were built up against them but are now broken away. There are also niches which most probably served to hold lamps. By a stairway, which has long since disappeared, but of the former character of which there are still indications, one came to the upper chambers. It seems most improbable that these upper chambers could have been intended, or used, for any other purposes but living-rooms for the priests.

The eastern façade had a vestibule built on to it, which has now entirely disappeared. The doorway between this vestibule and the central chamber is now in the entrance. To the casual eye, the building appears to have had a second story; but that is really only the parapet wall, decorated with niches, which crowns the façade of the first story. Behind this wall rose the roof, which was ornamented with dagobs; while the niches in the parapet were similarly adorned.

Of all the pitiful ruins of Hindu architecture on the Prambanan Plains, *Tjandi* Sari is easily one of the best preserved; and it is evident, even to-day, that in early times it was very richly ornamented on its exterior. In special, one finds crowned window openings in the façade, some of them being sham ones, with panels on either side containing carved figures in relief.

It is generally thought that this building served as a monastery for *Tjandi* Kalasan, and there is a great deal to be said in favour of this hypothesis. *Tjandi* Sari very obviously was not intended as a real temple, such as we understand by the term, but has many indications that it was more used as a dwelling. However, it has never been established definitely that there were no other monastery buildings nearer to Kalasan. In any case, *Tjandi* Sari was so small that it could only have accommodated a few monks. Even if we presume that the lower space was a sanctuary, it is still highly probable that only its guardians lived above it in the upper chamber.

But if these two ruined temples are in a deplorable state, those still further on at Prambanan are even worse.

Detail of Tjandi Sari.

TEMPORARY TIMBER CONSTRUCTION, INCLUDING SHORING—I

By G. A. GARDNER, M.I.Struct.E., Assoc.I.E.E., &c.

All timber construction may perhaps be regarded as temporary in that its life under general usage is limited, but the structures contemplated in the title of this series of articles are those ordinarily constructed as a provisional measure in connection with work of a more permanent character. The permanence of wood itself under favourable conditions can be very great, and two notable witnesses to this lie on the writer's table, to wit, a fragment of oak from a fourteenth-century structure and a fragment from one of the piles which supported and protected the piers of Old London Bridge, dating back to the thirteenth century. These are, however, comparatively young; and examples of sound wooden piling have been found over a thousand years old and some deeply-buried pieces, estimated to be of a very much greater age.

The types of temporary timber construction ordinarily associated with building works are: Dead and Raking Shores; Trestles and Towers for numerous purposes; Crane Gantries; Bridges and Gangways; Temporary Ends and other Enclosures; Formwork for mass and reinforced concrete, &c. These various constructions may range from simple assemblages of timbers with nailed or dogged joints to carefully-designed examples of carpentry of considerable magnitude; and the whole group may be considered to take a place intermediate between ordinary pole scaffolding on the one hand and more permanent or finished timber structures on the other.

The skill of the scaffolder must be acknowledged in passing, especially when it is remembered that he practises his craft without, as a rule, so much as a conscious smattering of the elementary laws of structural mechanics. His structures have been tested by usage, but when their oft-times slender factor of safety is unexpectedly encroached upon, collapse and regrettable loss of life have occurred. Has not the time arrived when every master labourer should

Fig. 1.—Switchback Railway Structure at the Wembley Exhibition.

understand something of the theory underlying the craft he practises?

The upper dividing line between temporary and permanent timber structures is not a hard-and-fast one, and the more elaborate types of temporary construction may embody many of the refinements of more permanent work. The extensive switchback structures at the late Wembley Exhibition were examples of more advanced temporary work; and two views of one of these erections, in which the design was supervised by the writer, are given in Figures 1 and 2. More permanent structures are exemplified in the large Water-Cooling Towers erected in connection with steam-electric generating plants; in long-span "Belfast" roof trusses, &c.; but the most noteworthy examples of bold timber construction are to be found in the huge Howe bridge trusses (William Howe, 1840) still employed on the American railroads. Some of these have clear spans of 200 ft. and are 45 ft. in depth with bottom chords, composed, for example, of four 10 in. by 20 in. sections of Oregon Pine.

The nature of the joints and connections in temporary timber structures, *i.e.*, whether nailed or bolted, is generally dependent upon the character of the work, both as regards strength and stability and the time for which the erection is required to serve; but whilst a considerable degree of arbitrary choice may be allowed, the real criteria are: structural sufficiency, and economy in materials and fabrication. Tables will be given for the strength of nailed and bolted connections in a later article. To cite a typical instance governing this question of joints and connections, a tall temporary timber trestle-way may be briefly considered. Here the lateral bracing forming the trestles will generally require to be bolted through the uprights in order safely to resist the overturning force of the wind acting upon the structure itself and any load being transported over the gangway, but the longitudinal sway bracing between the trestles may in many cases develop a sufficient resistance through nailed joints only. In some instances, however, although nailed longitudinal members might be adequate as sway bracing, the slenderness of the uprights would perhaps necessitate the provision of horizontal rails *bolted* to the uprights and stayed at intervals by bolted bracings forming stiffening towers between pairs of trestles. These matters may all be decided by the structural specialist with a sufficient degree of certainty for practical purposes.

The consideration of joints and connections opens up the general question of the basis of design for temporary timber structures; and as regards the *strength* of timber framework with the simple type of lapped joint extensively used in temporary work, it is often the case that connections cannot be made to have a potential value equal to that of the members themselves. This will readily be perceived in the case of braces acting in tension, where the ultimate bearing resistance of the bolted connection to the contiguous timbers may be very much less than the ultimate tensile strength of the brace—this is in the very nature of things, although the trouble may be lessened by careful design, whilst, conversely, it may be—and often is—aggravated. The writer noticed quite recently a temporary unloading bunk in which some 5 in. by 11 in. braces were attached to the uprights by a few 6 in. nails; although in that case it was an incompatibility worse in appearance than in effect, since of course a much smaller size would have sufficed for the braces. Where a timber framing can be constructed with steel rods to take the tensile forces, the joint sufficiency is generally more easily provided, since the timber compression members can usually be arranged to take a direct endwise bearing against other parts of the framing, as, for example, in the combination roof trusses of iron and wood built about the end of the last century; but in purely temporary construction the use of tie rods does not appear to be justified as a rule, except in work of considerable magnitude where the forces to be met are heavy.

Any temporary timber erection which is called upon to function structurally and is outside the category of a mere fence or hoarding should at some time or other before being sanctioned for service come under the approval of one sufficiently versed in structural mechanics to judge or ascertain its sufficiency; and it may perhaps be said that in all but trivial cases safety with economy would be best ensured if the structure were designed beforehand rather than merely erected in accordance with the dictates of practical judgment.

This does not, as a rule, imply a tedious process of calculation, and in many cases a simple computation of loads and forces, and reference to tables of safe carrying capacities, is all that is necessary. It may be pardonable in this connection tersely to re-state the case for theoretical investigation which has been ably put by several writers in the past:—Theory does not consist in the mere employment of algebraical symbols but in the exercise of *reason*, and theory is continually necessary in that problems constantly arise beyond the stage where precedent and experience will carry us. Everybody, in fact, employs theory—*i.e.*,

Fig. 2.—Detail of Switchback Railway Structure at the Wembley Exhibition.

reasoning—of some kind, and the desideratum is that their theory be sensibly complete, bold, and practical rather than crude and indecisive. It is not too much to say that the lives of building operatives are sometimes sacrificed to the theory that "Theory" is pedantic and unnecessary in connection with temporary timber erections.

In the design of timber structures the first necessity is to compute the loads and forces with reasonable accuracy, and in the case of dead shoring, for example, to consider carefully the contingency of the wedging operations (if any) tending to pick up more load than the minimum possible under purely static conditions. There is a tendency to shelve this elementary task of computing the weights in detail, and to relegate the matter to the "say" category—say, so many tons: a process which is only justifiable when an emergency decision has to be made on the spot in connection with the prevention of an imminent collapse. In the case of towers and trestles the force of the wind is often the chief load to consider, and in instances where Building Code wind pressures are enforced a somewhat extravagant use of material usually results. It is regrettable that in London and other industrial centres no systematic records have been taken of wind-pressures, and that very little is known as to the actual intensities common in "built-up" situations. In the past, building code legislators in a desire to make their regulations fool-proof have erred on the heavy side. In the writer's opinion a reasonable basis to design on, however, is to consider the effect of the wind as equivalent to a horizontal pressure of 25 lb. per sq. ft. at a height of 100 ft. from the ground level, with a reduction varying according to some plausible rule down to a value of

5 lbs. per sq. ft. at the ground. In seeking to plot a graph showing such values a parabolic curve naturally suggests itself and gives rise to the simple formula $p = (2\sqrt{h}) + 5$, where p is the pressure in lbs. per sq. ft. and h the number of feet in height from the ground. A copy of the graph is given in Fig. 3.

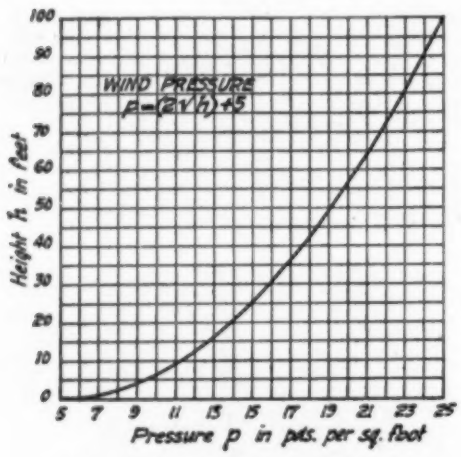


FIG. 3.—WIND PRESSURE GRAPH

For heights considerably above 100 ft. special considerations may be necessary; and for sloping surfaces the reduction coefficients given in Duchemin's formula (*see* structural text-books and steel contractor's hand-books) are considered satisfactory. If the temporary structures contemplated in these articles are designed for the above pressures with the customary factors of safety, a sufficient margin of strength and stability will be embodied to meet the contingency of squalls, and in situations where there is a definite sheltering effect from surrounding structures lower pressures may be chosen—*e.g.*, $p = (1{\cdot}5\sqrt{h}) + 3$. In the case of open framework the wind influence on the leeward members must be allowed for, and as a general rule not less than $\frac{1}{4}$ p. should be taken over their projected area, with the full value of p if they are situated remote from the windward surfaces. For members of circular section only 0.6 of the projected area need be reckoned. Remember, it is considered that the wind may blow at any horizontal angle to the structure; and the writer has come across some important errors as a result of a designer thoughtlesaly reckoning on the pressure being only normal to the drawing paper!

In leaving these brief remarks on wind-pressure, let it be borne in mind that there are numerous scattered references to the subject in technical literature (dealing with negative pressure, *i.e.*, suction, the force of gusts, &c.), which will well repay a careful perusal and comparison; and that, moreover, the values suggested above do not purport to lay down a law for the force of the wind at varying heights, but merely give a satisfactory equivalent designing basis for temporary timber structures under the general run of conditions met with in this country.

The question of "live" loads and the effects of impact must be dealt with, and here again a considerable amount of speculation is inevitable unless the somewhat crude and extravagant practice of always doubling the dead load is to be followed. The effect of impact due to the bump of wheels over rail joints, the clumsy dumping of a load from a crane, the vibration due to machinery, and such like, may be considered as distinct from the effect of an increase in stress due to the time rate of application of a load applied without impact. The rapid running of a motor lorry over a smooth asphalte road finish to a bridge deck will, in itself, cause elastic vibrations in the supporting structure, with a sympathetic increase in stress, quite apart from the impact or blow which might result from a wheel passing over an obstacle, such as a large stone. In practice, the total estimated effect of any kinetic or "live" loading is generally considered under the heading "impact," and fairly reliable estimates have been established in connection with the design of railroad and highway bridges, but in the miscellaneous cases which have to be considered in temporary timberwork it is difficult to lay down hard-and-fast rules—the force of a blow on a buffer frame at the end of an elevated truck-way, and the racking effect on a tower due to the unbalanced revolutions of sundry belt pullies, causing alternating stresses, are cases met with. It is more accurate to deal with the effects of kinetic loading by compensating stress reductions when stipulating the allowable design stresses to be used in a structure as a whole or in parts of it—for instance, the cross bearers of a temporary truck-way would be designed to a lower stress than the main beams or trusses—and it is even more accurate still to estimate and calculate the kinetic stress effects due to the combinations of dead and "live" loading, and to so design the structure that the materials will not be stressed beyond a fixed limit. These refinements are not, however, as a rule justified in temporary timber construction, even of considerable magnitude, but a structural specialist may have occasion to employ them when being called upon to make a pronouncement as to the probable sufficiency of a structure already built.

A few approximate values may be suggested as a guide:—

Type of Structure.	Part of Structure.	Equivalent Static Load as percentage of Actual Load.
Contractor's Railway-Gantry, or Loco. Crane Track.	Track Joists.	200 %
	Longitdl. Beams.	150 %
	Posts.	125 %
Platform for slowly moving Lorries.	Cross Joists.	150 %
	Longitdl. Beams.	125 %
Block and Tackle Hoist.	Beam.	175 %
Travelling Crane.	Track Beams.	133⅓ %

A later article will deal with questions affecting the design of component parts of structures, *i.e.*, posts, beams, braces, joints, &c., and the remaining item to be considered now is the location of the structure as governing the stress basis for design.

If the timber is to be erected in a wet situation where fibre saturation of the wood may obtain as a fairly constant condition, *e.g.*, in the case of jetties and water-cooling towers, lower unit stresses are sometimes stipulated as compared with cases where seasoned timber is to be employed in dry locations; and moreover, the increased weight of the saturated wood may be of sufficient importance to be reckoned with in some instances. Laboratory tests show a well-defined increase in strength as a result of the drying out of small clear green specimens, but in large structural timbers this would be offset by splits and checks caused during the drying, and only a low percentage increase can be reckoned on. Tables of Working Stresses and matters relevant thereto will be dealt with in the next article.

(To be continued.)

THE WEEK IN PARLIAMENT.

WESTMINSTER, WEDNESDAY.

The House reassembled, after the Easter Recess, on Tuesday, April 26.

The Architects' Bill.

The following members have been appointed to form the Select Committee to consider the Architects' (Registration) Bill:—Sir Clement Kinloch-Cooke, Mr. Gardner, Sir Alfred Hopkinson, Mr. Lindley, Sir Murdoch Macdonald, Colonel Moore, Sir Frederick Rice, Mr. Tasker, Mr. Viant, Captain Wallace, and Dr. Watts. The committee has power to send for persons, documents, and records, and three is to be the quorum.

The first meeting of the Committee, held on Tuesday, was private. The Committee elected Sir C. Kinloch-Cooke as chairman, and decided on their mode of procedure.

The Pottery Duty.

The House of Commons, by 242 votes to 142, has passed the Budget resolution imposing a duty of 28s. per cwt. on imported transculent and vitrified pottery.

Rural Housing.

Mr. Hurd asked the Minister of Health if he would state how many rural district councils had been appointed the authorities to work the Housing (Rural Workers') Act out of the 220 councils which applied to be so appointed; and on what grounds had applications from those councils been granted and refused, respectively?

Mr. Chamberlain said that the great majority of those applications were under consideration by the appropriate County Councils with whom he had been consulting as prescribed in the Act. Applications had been rejected in 49 cases where the County Council had made, or were making, a scheme which would cover the whole of the administrative county. Approval was being given in 22 cases where the County Council were not themselves at present proposing to carry out a scheme, and were of opinion that the work might properly be entrusted to the District Councils concerned.

Building Material Prices.

Mr. Chamberlain informed Mr. R. Morrison that he had not yet received the special report of the inter-departmental committee upon prices of building materials as to the reasons why, despite lower fuel costs, the prices of bricks, glazed ware and other building materials were still higher than before the coal stoppage.

Architectural Assistants.

Mr. E. Brown asked the Secretary for Air whether consideration was being given to regrading certain posts of architectural and engineering assistants and draughtsmen in his department; whether he was aware that the establishment branch of the Air Ministry had refused to consult with the organised body representative of the interests of the ex-Service staff involved; and whether he could now give an assurance that in any such regrading consultation would be made with this body before any final decision was come to so as to ensure ex-Service men's interests.

Sir S. Hoare said that the answer to the first part of the question was in the affirmative. The adoption of the title "draughtsman" or "architectural assistant" was a professional and not an ex-Service question, and any negotiations were appropriately conducted with the professional associations concerned through the medium of the Whitley Council. The Air Ministry was fully aware of the wishes of the staff affected, which had been put forward not only through Whitley channels but also in a special memorial.

THE LONDON SOCIETY.

MODERN STREET ARCHITECTURE.

Mr. Arthur Keen, V.-P. R.I.B.A., took the chair at a meeting of the London Society, held at the Royal Society of Arts, Adelphi, on Friday week last, when Professor A. E. Richardson, F.R.I.B.A., read a paper on this subject.

The lecturer said that towards the end of the nineteenth century, people began to be alarmed at the chaotic appearance of the streets. By 1870 there had been spasmodic attempts to depart from the Gothic revival, such as the efforts of Eden Nesfield, Norman Shaw, and others. There were also attempts to transplant the Parisian style, approaches to the American manner, and fresh advances towards the historical motives of Europe. Steelwork had become a specialised science; on the other hand, reinforced concrete was looked upon with apprehension. This was, indeed, a period of wavering. In commercial quarters there was a growing distrust of the quasi-domestic character, which, for fifty years, had invaded offices and stores. By the year 1910 the French influence of 1900 had penetrated every architect's office in London, and about this time English architects began to turn their affections towards America. When the new Selfridge building was completed, people lost their balance. Here, at long last, was a style suited to commerce. The delay in completing Kingsway and Aldwych allowed London architects to show what they could do on similar lines. A new scale was introduced. The issue, still obscure, had been further complicated by Norman Shaw's building in Regent Street. It was seen that by comparison with American examplars, the new English Classic was provincial in character. Then followed many abortive attempts to produce magnificence at the expense of uniformity. Apart from certain buildings, both Kingsway and Regent Street might be named streets of good intentions. But it could at least be extenuated that if English architects had failed as a body to produce a high standard for civic architecture, they had to their credit the revival of a domestic expression, which was unequalled in the world. The main argument of his paper, said the lecturer, was to prove that architecture at all periods of history had taken its impulse from some dominant factor of social life. In the past it expressed religion, autocracy, and private enterprise. The nineteenth century was the period of compromise between the old conservative traditions and the rising tide of industry. The present was the great age of business, all else was of secondary importance. Architects and those who took an interest in building did not anticipate that commercial buildings would ultimately give character to the whole of architectural enterprise. Heaven forfend! But it was obvious that if the main impulse was to continue to be of a commercial nature, there was the resistance from whence the chief architectural expression for towns would have to be derived.

London could be divided into districts, either commercial or residential. The subdivisions included banks, offices, warehouses, stores, shops, places of amusement, railway stations, flats and streets of small houses. There were the main shopping centres and the main business centres, namely, the City and the West End. All the other parishes outside the City and West End boundaries reflected the inner dispositions in a lesser way. Latterly London proper had developed inner movements which tended to distribute the old activities further afield.

The City of London, no bigger than it was in the days of Queen Elizabeth, was mediæval in formation; it had its narrow streets, courts and alleys, it clung to its Cheapside and its river thoroughfare, Thames Street. The rebuilding after the Great Fire settled the divisioning of the narrow sites, many of which still repeated the ancient spacing. But the inner movement of London, already referred to as being of recent occurrence, had had the effect of spoiling the old values and demarcations. The result was that London to-day particularly in its street architecture, presented the appearance of a hobbledehoy.

From 1840 to 1890 the lack of an ordered plan for the Metropolis was not criticised. In spite of the increase of population Victorian London of the late period went on grading and segregating its people. There was a decided liking among the middle classes for emancipation from the closed, packed streets, and from this there resulted the taste for living in the rural districts near London which could be reached daily from town.

All this fondness for domesticity was bound to affect commercial architecture. Combined with lack of vision for anything approaching the Metropolitan idea, there remained the craze for congregating in crowds and the alluring attractions of town life which for a century and a half had been attracting a great proportion of the rural population.

The frenzied seeking for a modern expression for commercial architecture was as bad as the exploitation of historical mannerisms. Even the development of ferro-concrete or the theory of a more logical manifestation of building facts would do little to help improve the face of London. There might well result, if the root cause was ignored, a worse depression than was the case to-day. The truth lay deeper, it was bound up with the replanning of London on grand lines. The proposed new bridges across the Thames opened up the prospect of new main thoroughfares, north and south, of a scale to improve the Metropolis for all time. At present London was an invertebrate mass; it needed a new series of wide thoroughfares, while improving and retaining the old. To be brief, the need of London was a new structural formation. If this were only partially realised, then would ensue enlightenment regarding the factories, which would be gradually regrouped between Barking and Tilbury, in connection with the vast Port of London. In relation to that new factory area dormitory villages would be established for the workers on the uplands of Essex. The City would be gradually freed from warehouses and given over entirely to offices. All wheeled traffic within half a mile of the Royal Exchange would be prohibited, the streets near unto the heart of the City being served by moving ways at the centre roofed by canopies. The Victorian suburbs would be gradually rebuilt on ordered lines. There would be one or two new main inner avenues completely encircling the City, the West End, and on the Surrey and Kent side, Kennington and Greenwich. Attempts would be made to zone the shopping centres and every encouragement given to group similar interests. The existing terminal stations could be moved to points five miles from Charing Cross and linked the one with the other by a ceinture railway. Perhaps in a hundred years coal would be converted into electricity and power at the pit head. The main theory seemed to point to the elimination of unnecessary traffic within London, not the encouragement of more. Give London the new main thoroughfares she so urgently requires and commercial architecture must improve in direct ratio. The tendencies of commercial architecture at the moment were towards expressing the character of the various private enterprises in terms of direct statement. Because of the fettering of tradition, the obsolescent building clauses of the Act, the iniquitous rulings of the laws of ancient lights, and the lack of unity in street designs, nothing resulted except quarrelling with the older and more satisfactory values which were out of date. New buildings, such as Adelaide House, Bush House, Devonshire House and some of the recent office buildings in the City, proved the limits to which the treatment of Portland stone attached to the steel skeletons could be taken. Those buildings had merit, but they were piecemeal contributions to ancient London. The effect of new main thoroughfares would be to link up the existing squares and open spaces and to reveal the majesty of the historic buildings, many of which could not be properly seen to-day. The new streets would provide scope for comprehensive design. There would be room for imaginative designs. For example, blocks of retail stores could be schemed with roofways and flying bridges connecting the blocks. There would be shops at three levels and batteries of lifts at intervals. The upper ways would call for extra policing, but they would all be closed at night. Had both sides of Regent-street been planned on these lines, a species of Uffizi Gallery would have resulted, giving London one of the finest open shopping arcades in the world. Such ideas would at first be confined to the great shopping centres. As the new streets were rebuilt the effect of uniformity would serve as a contrast to the ragged effect of the older streets, and even if the narrow sites had to be retained a general height line could be determined and strictly adhered to. The next issue was that of material. We were to-day, said the lecturer, confronted with two opposing factors, steel skeleton construction and veneers of Portland stone or brick. No matter which sort of compromise was effected in design treatment, the two factors did not answer the requirements of commercial architecture. Portland stone was a magnificent material for official buildings, for churches and monuments, but it was sadly out of place when awkwardly attached to steel as a species of plating.

Commercial architecture should be regarded as the dominant expression of City life. Of its very nature, commercial work, within certain specific limits, did not depend on historical conventions for its expression. It was the one form of building which admitted of a divergence from tradition and one which ultimately would react on the whole cycle of practice. The lecturer said that he was not among those who advocated the wholesale use of ferro concrete. He was aware of the possibilities of that system of construction and knew of its limitations. But the possibilities were not to be lightly put aside. First there was the stimulus which must accrue to design from its reasonable use—a new material inevitably affected the design of buildings—and secondly there was the sure knowledge that that material would gradually clear the architectural atmosphere from the fog of styles.

The next point was associated with the arrangement of facades. Building owners and architects were still slaves to the fetish of large shop windows. The aim should be to encourage customers to enter the buildings, not to congest the pavements and to collect crowds to stare at a confusing display of goods. In the case of small shops there was some excuse, but none where the large stores were concerned. The chaos in the streets to-day was the result of the high pressure of modern civilisation, the pursuit of false ideals and greed. To conclude, new streets were required; these would bring forth a newer system of comprehensive frontages and gradually some settlement would be arrived at regarding zoning of interests, construction, materials and expression. The issue was bound up with the ideal adjustment of commercial interests. There was scope for many committees, and finally control of civic amenities must be vested in one official body advised by a panel of experts.

Professor Richardson then concluded his lecture with a provocative and highly entertaining criticism of slides depicting examples of modern London and Continental architecture, the proceedings terminating with a vote of thanks to the lecturer, which was heartily accorded.

ARTICLED PUPILAGE OR COLLEGE TRAINING

DISCUSSION BY STRUCTURAL ENGINEERS.

The Institution of Structural Engineers varied from their ordinary programme last Thursday, when in place of a scientific or technical subject, they discussed the question of what was the best method of training for their profession. Mr. H. J. Deane (President) occupied the chair. There was a resolution before the meeting in the following terms:—"That the system of education of structural engineers by articled pupilage is contrary to the best interests of the student, and should be superseded by education in recognised engineering schools."

Professor J. Husband, M.Eng., M.Inst.C.E., affirmed this, and Mr. Ewart S. Andrews, B.Sc., A.M.Inst.C.E., led the opposition.

Professor Husband said the articled pupil and principal signed an agreement by which the principal was bound to instruct according to the best of his ability. The principal might be a local practitioner with a staff of one or two assistants, and in such a case the pupil would be in almost daily contact with his principal, or with a reasonably efficient assistant, and would probably be engaged in a considerable variety of work. But he might be articled with a large firm or municipality, and depend for any valid instruction upon the good will and knowledge of his immediate associates. In such a case the knowledge might be present, but the good will was frequently lacking, and the pupil was often relegated for long periods to monotonous and unimportant detail work. Between the two extremes were many gradations, but where the pupil received a reasonable amount of instruction such instruction would necessarily be of the kind most quickly translatable into commercial value. Hence he acquired a habit of routine, and was able to contribute usefully to the day's work; but was often ignorant of fundamental principles which, if not acquired in youth, would probably never be mastered in later years. A middle course was frequently adopted, by which the pupil was allowed a certain amount of time in which to attend classes; and if a suitable institution was available within reasonable distance, the principal was thus relieved of much responsibility; but part-time students did not work so well as whole-time students, and could not derive so much advantage from the courses. As to the material from which the average articled pupil was drawn, the premium was a consideration with the principal, and frequently caused the acceptance of a pupil of inferior capacity. Moreover, having paid a premium, the pupil considered himself a privileged person in such matters as holidays and amenity to discipline. He came from a fairly well-to-do class, was seldom proficient in the fundamental knowledge essential to a successful engineering career, and was not likely to obtain that knowledge in the office. If he had a natural aptitude he might become a neat draughtsman; and he might (but probably would not) attempt to make up leeway by attendance at evening classes. The average youth, if he was not dependent for his livelihood on his own unaided efforts, was more concerned with pleasure than with work; but if the pupil was conscientious and industrious he would acquire the rudiments of his profession as practiced in his particular office. Thus, if the principal was a mediocre general practitioner, the pupil would be a copy of a type tending rather to stagnation. The best interests of the pupil were the acquisition of a sound working knowledge of his profession, such as would enable him, without loss of time, to command a reasonable remuneration in return for his services as assistant, with the ultimate aim of reaching the status of principal. But if real progress was to be made, there must be added to this the vital necessity of keeping in touch with innovations, improved methods of construction, and the particular knowledge bearing on his line of work. These could best be acquired in an institution. The weak point of the engineering schools was that there was a great lack of co-ordination between their prescribed courses of engineering training, and in comparatively few schools was there any attempt to provide a really sound course of engineering training, from the point of view of the practical engineer. Almost all the schools urged the students too much in the direction of research. There was too much mathematics. The application of higher mathematics to structural problems was to-day carried to excess. Compared with the articled pupil the school-trained man would approach his problems with a greater grasp of their latent difficulties. He might not be so expert in taking out quantities or preparing an estimate, but these were matters which he would quickly assimilate. He would have an advantage in surveying and, unless spoiled by excessive mathematics, would prove the more valuable assistant.

Mr. Ewart S. Andrews said Professor Husband had pointed out that when a pupil started the principal entered into a legal undertaking to give the pupil a training in the knowledge and art of his profession. The college authorities gave no such undertaking. It was not necessarily true that the pupil who came to be articled was ignorant of fundamental principles, and any principal would prefer to start with a pupil who was a graduate of a university. The ideal was to have both methods of training, but that was not usually possible. The problem was, given a parent or guardian with, say, five hundred pounds to spend on the training of a boy who wanted to enter the engineering profession, should that boy be sent to a school or articled to a good practising engineer? It must not be assumed that if the boy went to a school it would be the best, nor if he was articled was it sure to be to a poor practitioner. As to the articled pupil coming from a well-to-do class, this applied also to the engineering graduate. Professor Husband had set out the real danger of the engineering school, the giving of too much mathematics: many students—most of those who had the capacity to be good engineers—lacked the capacity to understand mathematics well; and generally the brilliant mathematician did not make a first-class engineer. If he (the speaker) had to place a boy, and could only choose between one course or another, he was convinced by his experience since leaving college that he would article the pupil to an engineering practitioner. Professor Husband had said that very few graduates of engineering schools failed to obtain a salaried post immediately after leaving college. That had not been his (the speaker's) experience; it was true certain official posts were open to university graduates, but most men who had gone through engineering schools, and had not been able to afford to follow this up by a pupilage, had found themselves at a very grave disadvantage. The engineering school gave a training which developed the student's mind, and would be of immense value to him later on, but it did not prepare him to be a practising engineer. The students were never given any training in the actual practice of the bread and butter work of the engineer. There ought to be training alongside the practical work in the office, and it was the duty of the principal to see that the pupil obtained this.

In a discussion which followed there was a decided preference for Professor Husband's point of view rather than that of Mr. Andrews. The general feeling seemed to be that there should be first college training and afterwards articled pupilage. One speaker who advocated pupilage, thought this should be accompanied by evening classes. Another thought there should be a scheme of part-time day classes which could be attended by articled pupils. The chairman pointed out that a student, if engaged on practical work while studying theory, would get a more realistic grasp of that theory; also that besides the technical side of engineering there were such questions to be understood as that of what constituted a contract.

Mr. Andrews, in the course of a reply to the discussion, pointed out that there was not before the meeting any question of college training plus articled pupilage. The question was whether one of these methods was better than the other. Professor Husband agreed that a young man at the end of his college course was not an engineer. As to articled pupilage plus evening classes, it would take six years' hard work at evening classes to learn as much as in a two years' full-day course.

MOCK AUCTIONS

A Bill was recently introduced into Parliament to prohibit the holding of mock auctions. We have not seen the Bill, but, according to the statement made by its introducer when it was granted a first reading, it imposes a penalty for wilful misdescription for the purposes of sale of the origin or the quality and substance of the goods, and if the vendor is an auctioneer it renders him ineligible to hold a licence for 12 months after conviction. The introducer stated that there were "rigged" sales where country houses were filled with inferior articles which were advertised as if they were the property of the late owner, and in one such case a pair of vases the real value of which was £3 10s. were sold for £85. The words "origin of the goods" appear to have been inserted to meet such cases, but it may be a question whether a penalty can be imposed, not for a misdescription of the goods themselves, or an assertion as to their value, but simply on a statement, false though it may be, as to their ownership. The public must show some discrimination for itself in purchasing goods.

Under the criminal law, as it stands at present, holders of mock auctions are liable to conviction in certain ways. Thus the holders of auctions with sham bidders who pretend to be real bidders for the purpose of selling goods at prices grossly above their worth are liable to be indicted for conspiracy (Reg. *v.* Lewis, 11 Cox 404), whilst compelling a person under duress to pay for a lot which has, to the knowledge of the person making the demand not been bid for by the person placed under duress, may amount to larceny (Reg. *v.* Macgrath, L.R. 1 C.C.R. 205). The cases the Bill is aimed at might appear to come under "false pretences," but there appears to be a difficulty in framing an indictment because of the well-known principle that "indefinite praise upon a matter of indefinite opinion cannot be made the ground of an indictment for false pretences" (Reg. *v.* Bryan, 26 L.J. (M.C.) 90).

The Bill, it was stated, was promoted by the Incorporated Society of Auctioneers and Landed Property Agents after consultation with the Auctioneers' and Estate Agents' Institute, and has general support, and it certainly is time that the practices aimed at should be brought within a clearly defined prohibition directed to secure certain conviction in such cases, for the uncertainty of being able to prove a false pretence has no doubt prevented prosecutions being undertaken by private individuals, but great care will have to be taken when the Bill is in Committee to see that it is framed in such a manner as to attain its object, and the advice of expert criminal lawyers should be obtained on that part of the measure which relates to the false pretence. A penalty by itself also appears inadequate, and in gross cases imprisonment should be imposed.

THE LONDON BUILDING ACTS AND THEIR APPLICATION.—XVI

By H. V. MILNES EMERSON, A.R.I.B.A.

ESCAPE FROM FIRE—L.C.C REGULATIONS (*continued*).

General.

(a) Proper guard rails should be provided to the routes of escape on roofs, etc., and round skylights, lantern lights and ventilating cowls on the roofs of projecting shops.

(b) Clear gangways should be kept up to and between all staircases, gangways and exits on all floors.

(c) All escape doors should be made so as to open in the direction of exit or to swing both ways, clear of steps, landings, passageways, etc.

(d) All doors usable as means of escape from both sides should swing both ways and be kept free from all fastenings.

(e) All such doors must, if required to be provided with fastenings during the time persons are upon the premises, be fitted during such time with automatic bolts only.

(f) In buildings other than residential buildings a portion of the upper panels of all fire-resisting doors usable as means of escape should be glazed with transparent fire-resisting glazing, and it is suggested that a portion of the upper panels of all other principal exit doors should be glazed with clear glass, the glass to be at such a height as will enable persons approaching the doors in opposite directions to see each other.

(g) Windows on the floors above the ground floor facing the public way, street, thoroughfare, or open space should be made to open easily at sill level to a sufficient height and width to allow a full-grown person through in case of need.

(h) Windows and doors affording access to external escape staircases, balconies, bridges, etc., should be marked on the inside in large letters, "Exit in case of fire."

Note.—Section 7 of the Act of 1905 requires adequate means of escape from every new building (excepting a dwelling house occupied as such by not more than one family) when such building is a high building (60 feet or more high), or where more than 20 persons are housed or employed. Plans, etc., are to be furnished to the Council showing the proposed means of escape, and it will be found that generally the Council will agree to any reasonable scheme, and the L.C.C. officials will render any assistance possible in formulating such scheme.

It should be noted that in paragraph 3 of Section 7 that the fire risk, etc., shall not be increased. The Council have power to sanction increased areas of floor space, etc., provided that the conditions relating to means of escape and number of persons employed, etc., are complied with, but should these conditions not be carried out, then the Council can refuse to issue a certificate, as in the recent case of a large building in Regent-street.

As with new buildings, any existing building (excepting a dwelling house occupied as such by not more than one family) which is more than 60 ft. high, or where more than 20 people are housed or employed, must be provided with alternate means of escape is required by the Council. In this case the Council serve a notice upon the owner or occupier stating their requirements, but any reasonable alternative means submitted by the owner, etc., will generally be agreed to by the Council.

In such notices the L.C.C. usually try to provide for all possible contingencies, but it is often possible, when discussed with the officials, to modify or even omit some of the requirements.

In some factories there is a tendency to obstruct some of the exits on the ground floor with goods, etc. A guard rail on the inside some 4 feet or so from the doors, or other means, should be provided to prevent this obstruction.

A building, the upper part of which was used as a factory and the lower stories let to tenants, it was held that the whole building was not a factory, and that the owner could not be compelled to erect a staircase through the lower stories if by doing so he committed a trespass. (Q.B. 1900, 82 L.T. 195.)

Where the owner of a factory had received notice from the Council to provide means of escape from fire, which, if carried out, would have involved an act of trespass on other premises, it was held that the notice served was not final and that the magistrate ought not to convict for refusal to comply. (K.B. 1901, 17 T.L.R. 504.)

The Council must specify the works required for the protection of each factory separately where there are two separate factories in the same building, not being a tenement factory belonging to the same owner. (Ch. 1902, 87 L.T. 578.)

Under Section 149 of the Factory and Workshop Act, 1901, the expression "tenement factory" means a factory where mechanical power is supplied to different parts of the same building occupied by different persons for the purpose of any manufacturing process or handicraft in such manner that those parts constitute in law separate factories, and for the provisions of this Act with respect to tenement factories all buildings situate within the same close or curtilage shall be treated as one building. In the foregoing decision, as the mechanical power was not supplied from the same source, the two factories did not constitute one "tenement factory."

Premises occupied by three different persons in different parts, of which two parts constituted in law separate factories, it was held that as the mechanical power was not supplied from a common source, but was produced and used in the respective factories, the premises containing the two factories could not constitute a "tenement factory" within this section. (K.B. 1904, 91 L.T. 344.)

In small buildings one staircase will prove sufficient provided means of escape to adjoining roofs, etc., are provided. Where external iron staircases are used they must have dead bearings and not be cantilevered from the walls. If the staircase is to be used as a means of escape only, the treads can be 10 in. wide and the risers 7½ in. high, but if the staircase is to be used for general purposes it should be made easy going, *i.e.*, 10 in. tread by 6 in. rise, etc. Exit doors must open outwards, and the full width required should be between the doors and not the frames.

It might happen that an external iron escape staircase would land into or adjacent to a public thoroughfare or place. As this would probably be a means of entry to the premises by unauthorised persons, the lower flight can be hinged and balanced so that persons descending would cause the lower flight to slowly descend and be automatically locked in position.

The softest of internal wood staircases in old buildings can be rendered fire-resisting by means of Lewis dovetail sheeting and cement or plaster. This sheeting being solid and not perforated affords the same protection to the wood staircase as the plain sheets do to the metal and wood fire-resisting doors.

Preservation of Ancient Bridges.

The Council of the Royal Institute of British Architects have made a grant of £100 to the Society for the Protection of Ancient Buildings to assist the Society in their efforts to obtain the necessary particulars of old bridges which are worthy of preservation.

BOOK REVIEWS

English Decorative Plasterwork of the Renaissance. By M. JOURDAIN. (B. T. Batsford, Ltd.) Medium quarto, cloth. £1 10s. net.

The man painting the house-front of a past P.R.A.'s house greeted the great man as a brother of the brush; it is all a matter of degree, and so with plasterwork. To be a plasterer sounds uninspiring enough—you can ascertain his standard wage from week to week quite easily—but there are plasterers and plasterers to-day even as there were in the heyday of the Renaissance.

As a mere picture-book of beautiful things Miss Jourdain's volume on the plasterwork of the Renaissance would appeal to a wide circle of readers, but it will appeal more directly to architectural students and practitioners as a fine exposition of all that is best in the decorative plasterwork for which England has been so justly noted from Tudor to Georgian days. Bearing in mind Miss Jourdain's two great works on decoration and furniture work in England of the early Renaissance and the late eighteenth century, we naturally expect something of outstanding quality in this new venture; and we are not disappointed. Miss Jourdain is a diligent worker, an enthusiast in any subject she undertakes, and a facile writer.

If the "plastique art—the graceful fretting of roofs" was introduced into England by Italian craftsmen in the reign of Henry VIII and largely carried on by imported craftsmen, we can well believe that the craft secrets were soon bequeathed to native workers. Such names as Astari, Bagutti, Enzer and Franchini appear in records of the later Renaissance of the eighteenth century, and they were working side by side with the Jacksons, Sherwoods, Groves, and Mansfields of native stock. The few names recorded of the early Renaissance are generally English and the artistry of the plasterer developed mainly on English lines, just as in the case of the furniture and other adornments of the home. Take, for instance, figures 48 and 49, details from the Oak Room, and Long Gallery at Burton Agnes, Yorkshire (*c.* 1601–1610). These scrolling designs of flowering honeysuckle and wild rose hit the happy medium betwixt nature and convention—rather inclining to the former—and must surely have been designed by some sturdy Englishman with an innate knowledge of the countryside flowers and a special love for his national floral emblem; perhaps he was John Cobbe, who in 1601 was paid for "frettishing" the ceilings of Saint John's College, Cambridge, or Richard Dungan, the King's plasterer, who fretted the ceiling of James I's bedroom at Knole; that is as may be, but the Burton Agnes ceilings have practically disappeared, and Miss Jourdain has done us the service of unearthing C. J. Richardson's drawings and descriptions of them as they were in 1838. The modern decorator might with advantage adopt or adapt some of these comparatively simple early Stuart designs, even if he could not accomplish the tender fragilities at Melton Constable, Norfolk (Figs. 118 and 119), dated by the plasterer 1687. The very date is suggestive, but Miss Jourdain does not suggest that the models for the moulds in which these life-like birds, fruit and flowers were cast were carved by Grinling Gibbon. The specialist may discover evidences to the contrary, but they are as tender in treatment as the carved wooden swags which frame the doorways at Hampton Court Palace.

The moulds were the plasterer's stock-in-trade, and there is evidence, as shown by the authoress, that there were guilds of plasterers; in Devonshire we find the same or similar *motifs* at Barnstaple and North Molton, and again at Bradninch and Bradfield, indicating a local centre of the craft or work done by one family or guild. John Heath, who was employed by Henry VIII at Hampton Court, left to his second son Laurence "my moulds and moulded work that I served the King withal," showing that the moulds were a possession of value, indeed the craftsman's working capital.

Miss Jourdain takes us right through the art

of the plasterer or ornamental modeller from the fretted ceilings of Hampton Court (*c.* 1525–35)—simple geometrical schemes suggested by the Gothic joiners' flat timber ceilings with carved bosses—to the elaborate pictorial confections and sculptural hunting scenes that we find at Hardwick Hall, in 1597, to the school of Inigo Jones, the French influence of the early eighteenth century and the Palladians, and so on to the refinements in plaster treatment of walls and ceilings of Adam and the post-Palladian architects.

The book contains 115 plates from specially taken photographs in addition to a large number of measured and sectional drawings. These, together with text, in a format which does credit to the publishers, constitute a volume attractive to the connoisseur in arts and a valuable asset to the practitioner in these days of a revival in the art of plastic decoration.

The Art and Craft of Garden Making. By THOMAS H. MAWSON and E. PRENTICE MAWSON. 5th edition. (B. T. Batsford, Ltd.) £3 15s. net.

The man or woman who, given the opportunity, has not planted a garden has lived in vain. Shakespeare's plays are redolent of English flowers and flower gardens, and some happy descendant of Faunus and Sterculus planted, in the last century or earlier, at Brockwell Park, S.E., a walled garden in which every flower mentioned by Shakespeare grows. The Mawson great folio on the "Art and Craft of Garden Making" ran to four editions before the war, and the fifth edition, rearranged and considerably enlarged, brings the whole matter up to date. There was a continuous flow of gardening literature from the Press in the decade ante 1914, and with a settled peace long may the reflow continue. The addition of the garden of the Peace Palace at The Hague to this new edition is a happy touch. Mr. Mawson is a gardening expert of twenty-five years standing, a fellow of the Linnean Society, and late lecturer on Landscape Design at the University of Liverpool. In conjunction with his son, Mr. E. Prentice Mawson, he is responsible for a considerable list of books and lectures on town-planning and allied subjects doubtless quite familiar to our readers. This book of gardens and gardening should prove a welcome addition to any library of general literature and an invaluable asset to the working library of any gardening enthusiast, amateur or professional. Architecture and landscape gardening are closely co-related and, as this book may claim to be the most complete compendium of garden design to date, it will make a special appeal to architects and builders. The 424 pages, properly indexed, include 514 plans, sketches and photographs, together with five fine full-page plates in colour. The twenty chapters commence with the historical side of the subject and finish with "Hardy perennials for Beds, Borders, &c."; and in between is all one could wish to know of site-treatment, lodges, gateways, gates, fences, drives, avenues, greenhouses, conservatories, herbaceous gardens, pergolas, water gardens, rock and bog gardens, lily ponds, and bathing pools, lawns and landscape effects, and indeed everything that goes to the making of a garden, small or great, from the garden of the cottage and semi-detached villa to the grounds of a mansion. The illustrations, both pictorial and diagrammatic, are both delightful and useful. The book as a whole is encyclopædic in matter if not in actual form, concise, practically informative, and very readable.

Acreage and Other Conversion Tables. By A. E. GAYER, M.Inst.M. & Cy.E., Principal of North London School of Surveying, Hampstead. Second Edition.

This is a card folding up into 9 in. by 3¼ in. (pocket size), and when opened out contains in tabular form the necessary material for facilitating the conversion of square feet into acres, roods, and perches, links into feet, and feet into links, &c., and within its limits, where a large amount of computation has to be done, will save much time, with possibly a gain in accuracy.

ARCHITECTS' & BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or, better still, in typewriting!—ED.

Squash Racquets Court.

[REPLIES TO "RECREATION," APRIL 29.]

SIR,—The regulation size of squash courts is 31 ft. by 21 ft The front wall is about 18 ft. and the back wall 7 ft. The building is of brick with the inside faced to a smooth surface in cement. The entrance door and frame must be perfectly flush, including hinges and locks. The floor is formed with granolithic on a solid concrete foundation. A "tell-tale" board in hardwood is fixed on the front wall 1 ft. 9 in. above the floor. If "Recreation" will commmunicate through *The Builder* with the writer he will be pleased to give further particulars.

PUBLIC SCHOOLS.

SIR,—The net sizes internally must be 32 ft. long, 21 ft. wide and 15 ft. high to springing of roof. The roof should be arranged so that the daylight lighting is close to the springing; artificial light is by four or six specially shaped metal shades throwing the light away from the players but evenly illuminating the court. The back of the court should be solid 12 ft. high, and is usually arranged with a gallery above that height. In the back wall the only opening at floor level is a narrow door for access, being formed in teak painted white, and absolutely flush, including ironmongery, with the face of the plaster. It sometimes has a pocket for balls arranged in it. Some courts are without a door and arranged with a rope ladder from the gallery.

Ventilation is arranged in the gable ends above the springing of the roof and by large air bricks in the end play wall at floor level, as condensation on the surface of the walls is the great problem, and to avoid this the walls are plastered with a special non-sweating plaster, which finishes white and does not require painting; the back wall need only be plastered 7 ft. high. The floor is usually covered with 1¼ in. maple in long lengths and 4 in. widths on battens in concrete, and is painted white. The end play wall is fitted with a framed play board 1 ft. 7 in. high, the full width of the court at floor level, and 6 ft. from floor level. The 2 in. service line is painted on this wall. The lines on the floor are painted in red and consist of a 2 in. line across the court 14 ft. from the back of the court, and from this a central line to the back of the court; outside the cross line in the angles next the flank walls "service boxes" 5 ft. 3 in. square are formed by similar lines.

GILBERT H. LOVEGROVE, F.R.I.B.A.

Rain-Excluding Device.

[REPLY TO J. M., APRIL 22.]

SIR,—I know of no patent device for the purpose required, but I believe that the application of metal striking slips as supplied for steel casements when hung direct to wood frames without containing metal frames, would be likely to answer the purpose very well, and I suggest your correspondent should get in touch with a good firm of metal window manufacturers. I have myself used a strip of curtain brass to exclude driving weather from a transome, and this has proved very satisfactory. We cut it the full width into the rebate on either side, and bedded it in red lead.

ARCHITECT.

Contract Question.

SIR,—A certain contract has been let after a tender had been accepted and the schedule of prices deposited. It has been discovered that the contractor has made a mistake of £100 in his addition, so that his schedule prices are actually higher than can be totalled to the contract figure. On what basis should the variations be adjusted? The contract stipulates that they will be measured and priced at the rate quoted in the schedule of prices deposited within seven days of the signing of the contractor, and the contractor appears to have some case for claiming his figures as a basis. I feel very much in doubt upon the question and should be glad of advice. PLEASE.

London Building Acts.

SIR,—Would you be good enough to tell me whether there is a simple digest of the L.B.A. for quick reference? I mean something a little less exhaustive than Banister Fletcher's excellent work. YOUTH.

[Perhaps Mr. Milnes Emerson's articles now appearing in *The Builder* will be a service to our correspondent.—ED.]

Green Pantiles.

SIR,—Would it be safe to make use of glazed pantiles of green colour from any potteries that produce this material, or should the clay be of any particular variety? A certain local firm has offered to quote although they have not previously made such things, and as their price is considerably lower than I have had elsewhere, I am wondering whether there is a "snag" somewhere. COLOUR.

Pine Sawdust Packing.

SIR,—We have to erect a range of kennels which it is proposed should be constructed of timber framing covered each side with cement asbestos sheets, and the voids between filled with pine sawdust tightly rammed. We are given to understand that if moisture reaches the sawdust it will be liable to ignite by spontaneous combustion. Pine sawdust is considered vermin proof, hence its choice for the purpose. Any information on this subject would be appreciated. READERS.

Polish for Choir Stalls.

SIR,—I should be glad if any of your readers could tell me the best and cheapest way to wax up some oak choir stalls for a polish surface so as not to alter their shade. They have simply been oiled in the past and this oil keeps gradually working to the surface.

A. J. W.

Diameter of Drain Pipes.

[REPLY TO "URGENT," APRIL 29.]

SIR,—I believe that the majority of standard rules for sizes of drain pipes are excessive, and it appears that the number of 3½ in. pipes arranged in this building are far more than actually required, so that it is not they that will govern the size of the drain, but the actual roof area. I have recently constructed a block of buildings in which there is a roof area of about 5,700 sq. ft., and in which there are 22 W.C.s, 22 baths and wash basins and 22 sinks. The outlet drain is 6 in. diameter, and proves quite adequate for all calls made upon it. I have had it examined during storm weather and have never found it running full bore. I consider that if your correspondent provides a 6 in. drain for each half of the building and a 9 in. from their junction onwards, there is no fear as to its capacity. ASSIZ.

Architects' Fees for Subsidy Houses.

[REPLY to "SUBSIFEE," APRIL 29.]

SIR,—The services described are hardly covered by the R.I.B.A. scale, and can hardly be assessed upon the cost of the house. In such a case the fee charged would have to be assessed upon the amount of labour involved, and upon the standing of the architect, and in most cases one of £10 10s. would probably be near the mark.

UNATTRACTED.

THE BUILDING TRADE

THE LAW OF FIXTURES.—II.

By W. T. CRESWELL, Barrister-at-Law; L.R.I.B.A.; Associate (late Fellow) of the Surveyors' Institution; &c.

What are Fixtures?

Fixtures are divisible into two classes; first, those which when once implanted in the soil become "part of the soil" and irremovable, except with the consent of the landlord; and, secondly, those which a tenant is entitled to sever during his tenancy, but which, until they are severed, form part of the freehold; and, if the tenant does not sever them, remain, after the end of his tenancy, fixtures for all time. (See Crossley Brothers, Ltd. *v.* Lee, 1908, 1 K.B. 86).

In determining whether or not a chattel has become a fixture, the intention of the person affixing it to the soil is only material so far as it can be presumed from the manner or degree of the annexation to the freehold. (See Hobson v. Gorringe, 1897, 1 Ch. 182; and Cosby *v.* Shaw, 1888, 19 L.R., Ir. 307.)

The general rule that when chattels are attached to the soil they become fixtures may be set aside in some cases by showing that such items were not annexed for the *permanent* improvement of the land, but for the purpose of temporary enjoyment as chattels; thus, chairs set up by the lessees of a theatre and screwed to the floor, for better use and enjoyment of the audience, are not fixtures; but if they were placed there by the lessor they, of course, would be.

Articles merely resting on the ground alone, though they may have become in course of time embedded in the ground by their own weight, or through a weight being placed upon them, or, again, articles merely resting in brick chambers (as, for instance, a weighing machine) are all removable if they are not attached or cemented in any way to a brick or stone foundation; and if it is obvious that the intention of the party placing them was not to make them part of the realty. Thus blocks of stone, or blocks of concrete and the like, forming a drystone boundary wall, and without any cement or mortar to the joints, remain part of the land and irremovable; but similar blocks of stone or concrete stacked in the form of a wall in a stonemason's yard for convenient storing remain chattels. So, too, posts and rails put up by a tenant remain chattels, as also wood or iron hurdles moved from day to day, or from season to season, and not put up as a permanent fence. Also a barn lying on pattens or blocks of timber, but not fixed to the soil, is removable as a chattel.

The term "fixture" does not include such things as windows, or other like things, when they form part of the structure itself. In Boswell *v.* Crucible Steel Co. (1925), 1 K.B., 119 C.A., the frontage of business premises situated at the corner of two streets consisted mainly of plate-glass windows, not made to open, but fixed in steel beadings; and the lessees had covenanted to keep the inside thereof, including all landlord's fixtures, in good repair. The lessor claimed from the lessee damages for non-replacement of certain of the windows which had been broken. It was held, on appeal, that the term "landlord's fixtures" applies to chattels which are brought by the landlord to the premises and *affixed* to the structure, but do not form part thereof. In this case, the windows formed part of the structure of the building, and consequently were not repairable by the lessees, the defendants in the action.

The Intention.

As we have just said, if the intention of a tenant when placing a chattel on the premises is that it shall remain permanently on the premises, it is treated as being permanently attached to the freehold and irremovable. It need not necessarily always remain in the same position. If suitable, it can be taken down and re-erected on the same premises in another position for convenience. But, in general, it may be stated that the decision of the court will always depend on the evidence; that is, on the special circumstances and the intention of the party who himself fixed the chattel in question on another's land.

Constructive and Indirect Annexation.

An article may be attached to the freehold by "indirect annexation." That is, it may become a fixture by being attached to something which, in its turn, is fastened to the freehold so as to form part of it. Thus, where a tenant had erected a verandah, the lower part of which was attached to posts fixed in the ground, it was held the tenant could not remove it.

In general essential accessories or adjuncts to fixtures, whether in themselves movable or not, are governed by the same rules as are those fixtures themselves; and if there is an article which in itself is removable, and yet forms an essential part of an article that is a fixture, it is also a fixture by what is termed constructive annexation, such, for instance, as a detachable part of a machine, the key of a fitted wardrobe, and a millstone (even if removed for repair) forming part of a machine which is a fixture. If a machine is kept in position by its own weight only, and not fixed in any way, except that it is attached to and driven by a fixed mechanism, of which it does not form an essential part, and if the removal of the machine itself would cause some slight damage to the building, it has been held that such a machine is not a fixture. But in Monti *v.* Barnes (1901), 1 K.B. 205, when a mortgagor of a freehold dwelling-house, after executing the mortgage, removed certain fixed grates from that house and substituted for them an equal number of dog grates in the fireplace openings, which merely rested by their own weight, it was held that the true inference was that the intention had been to substitute the dog grates for the fixed grates for the improvement of the property, and that they were therefore fixtures.

Degree of Attachment.

The two principles governing, as between heirs and executors, the degree of attachment were fully considered in Leigh *v.* Taylor (1902), A.C. 157, when it was stated (1) that if something has been made part of the house it must necessarily go to the heir, because the house goes to the heir; (2) that, on the other hand, when it is something which, although it may be attached in some manner or another to the walls of the house, yet, having regard to the nature of the thing itself and the purpose of its being placed there, as not intended to form part of the realty, but as only a means of enjoyment while the person fixing it is temporarily there, then it is removable and goes to the executor. In the case quoted the question was whether certain valuable tapestries introduced by a life tenant to a house for the purpose of ornament, and further affixed to the walls thereof for the better enjoyment of them as chattels, and which tapestries could be removed without

COMPARISON OF PRICES OF BUILDING MATERIALS ON APRIL 1st, 1927, WITH CURRENT PRICES.

Materials.	April 1 1927. £ s. d.		May 1 1927. £ s. d.		Rise. %	Fall. %
Bricks—						
Best Stocks	4 5 6	.....	4 5 6	.....	— ...	—
Flettons	2 14 3	.....	2 14 3	.....	— ...	—
Glazed	21 10 0	.....	21 10 0	.....	— ...	—
Thames Ballast	0 10 6	.....	0 10 6	.....	— ...	—
Thames Sand	0 14 6	.....	0 14 6	.....	— ...	—
Shingle (¾ in.)	0 12 9	.....	0 12 9	.....	— ...	—
Portland Cement	2 18 0	.....	2 18 0	.....	— ...	—
Ground Blue Lias Lime	2 13 6	.....	2 13 6	.....	— ...	—
Grey Stone Lime	3 0 9	.....	3 0 9	.....	— ...	—
Bath Stone	0 2 9½	.....	0 2 9½	.....	— ...	—
Portland Stone	0 4 4½	.....	0 4 4½	.....	— ...	—
Good Sound Building Timber—						
4 in. × 11 in.	28 0 0	.....	28 0 0	.....	— ...	—
3 in. × 11 in.	25 0 0	.....	25 0 0	.....	— ...	—
2 in. × 11 in.	25 0 0	.....	25 0 0	.....	— ...	—
3 in. × 9 in.	24 0 0	.....	24 0 0	.....	— ...	—
3 in. × 7 in.	20 0 0	.....	20 0 0	.....	— ...	—
3 in. × 4 in.	22 0 0	.....	22 0 0	.....	— ...	—
Slates—						
24 in. × 12 in.	37 12 6	.....	37 12 6	.....	— ...	—
22 in. × 12 in.	34 0 0	.....	34 0 0	.....	— ...	—
20 in. × 10 in.	25 12 6	.....	25 12 6	.....	— ...	—
16 in. × 10 in.	17 12 6	.....	17 12 6	.....	— ...	—
16 in. × 8 in.	13 15 0	.....	13 15 0	.....	— ...	—
R.S. Joists	12 10 0	.....	12 10 0	.....	— ...	—
Iron—						
Common Bars	13 0 0	.....	13 0 0	.....	— ...	—
Mild Steel Bars	10 0 0	.....	10 0 0	.....	— ...	—
Steel Bars	10 0 0	.....	10 0 0	.....	— ...	—
Cut Nails	19 0 0	.....	19 0 0	.....	— ...	—
Sheet Lead	35 10 0	.....	33 10 0	.....	— ...	4.22
Glass—						
15 oz. Sheet	0 0 3½	.....	0 0 2¾	.....	— ...	21.43
21 oz. Sheet	0 0 4½	.....	0 0 4	.....	— ...	10.11
26 oz. Sheet	0 0 5	.....	0 0 4½	.....	— ...	10.00
Raw Linseed Oil	0 3 1	.....	0 3 1	.....	— ...	—
Turpentine	0 4 3	.....	0 4 2	.....	— ...	1.96
Ground English White Lead ...	49 5 0	.....	48 0 0	.....	— ...	2.03
White Lead Paint	68 15 0	.....	67 10 0	.....	— ...	1.82
Red Lead	41 0 0	.....	39 10 0	.....	— ...	3.70

doing any structural injury, had nevertheless been so affixed to the walls as to become part of the structure or were still merely chattels passing on the death of the tenant for life to the executor. It was held that they were removable by the executor. But in *re* Whaley (1908), 1 Ch. 615, the last case was stated to have a distinct character. Here a testator had, in his lifetime, bought a house, in which the *former owner* had fitted and decorated the dining-room as a perfect specimen of Elizabethan furnishing, with tapestries fixed to the walls, being nailed upon wooden frames which were kept in their place by the mouldings of an oak dado and frieze above, fastened to the wall by screws. Also there was a picture, painted on wood, of Queen Elizabeth attributed to Zucchero similarly fixed and bought with the house. It was held that the picture and tapestries were fixtures, having been fixed as part of a general scheme of decoration, and not for their better enjoyment as individual chattels; and that they passed, under the devise of the house, to the devisee and not to others under a gift of chattels. Later, in *re* Lord Chesterfield's Estates (1911), 1 Ch. 237, this last ruling was followed; for here it was held that the executor of a deceased owner in fee has no right to remove from the inheritance more than that which, really and properly considered, was not fixed to it in a definite way. Here carvings were fixed to the walls of various rooms, by means of nails or pegs driven through them into stiles built into the walls, and it was held that they being fixed, in a definite way, to the inheritance so as to form part of the house, they remained part of the house and were fixtures. Generally tapestries, pictures in panels, frames filled with satin and attached to the walls, statues, figures, vases and stone garden seats placed and being essentially part of the property, or of the architectural design of the buildings or grounds, and fashioned in whatever manner, remain part of the premises, and are fixtures, but pier glasses and pictures, not in panels and not forming part of the building, are not fixtures. (See D'Eyncourt *v.* Gregory, 1866, L.R. 3 Eq. 382.)

In Pole-Carew *v.* Western Counties and General Manure Co. (1920), 2 Ch. 97 C.A., the company leased premises upon which, at their own expense, they erected ordinary buildings for their manure manufacture; and also a complete plant for making sulphuric acid on the "chamber process," consisting of pyrites burners, four reactive chambers, and two towers, known as a "Glover tower" and "Gay-Lussac tower." Three of the chambers were of great size. It was held that the chambers and the towers must, having regard to all the circumstances, be regarded as integral portions of one composite building permanently annexed to the freehold, and not as chattels or as tenants' fixtures.

A Belt of Parkland round Newcastle.

A comprenensive scheme for preserving an unbroken belt of parks, moor, and pathway round Newcastle is, we understand, shortly to be submitted to the city council. Under the scheme, which has been prepared by the Newcastle-upon-Tyne Society, the sylvan belt would be drawn in the form of a curve from Scotswood (Denton Dene) round the Town Moor to Heaton (Ouseburn Vale).

Big London Property Deal.

A sum of nearly £700,000 was the purchase price in a big London real estate deal involving several blocks of flats which has just been completed. A new company has been formed to take over the properties, which include Oakwood-court, Kensington; North-court, Westminster; 2, Weymouth-street, W.; St. Ermins, Westminster, the well-known block of buildings adjacent to St. James's Park, covering about an acre of ground, and Grafton House, Tottenham Court-road. The total rental of these properties amounts to over £106,000 per annum.

THE REPRESENTATIONS OF THE CENTRAL VALUATION COMMITTEE

The Report containing the representations of the Central Valuation Committee constituted under section 57 of the Rating and Valuation Act, 1925, to formulate principles for the assistance or guidance of Rating Authorities, Assessment Committees and County Valuation Committees, is an important document requiring careful consideration. It commences with an introductory statement explaining the constitution and functions of the Committee and the existing system of valuation and the changes to be effected under the Act which lead up to the resolutions they have passed. It is an interesting sketch, but except for quoting the following figures we pass to the resolutions themselves.

There are at present Overseers for 14,000 separate parishes and Union Assessment Committees for 600 poor-law unions. In 1926 the gross value recorded in parochial valuation lists amounted in April to £377,619,000. In the years 1913-14 the sums raised by local authorities from local rates was £71,276,000, the Government grants amounting to £22,617,000. In the year 1924-25 the amount raised from the rates was £142,000,000 and the Government grants £82,300,000. These figures total £224,300,000, 64 per cent. being derived from the rates and 36 per cent. from the Government.

These figures give some idea of the growth of local expenditure, the amount from the rates having been doubled in the eleven years, whilst the Government grants have all but quadrupled, and we may well ask when is a halt to be called in local expenditure, for the above total exceeds the pre-war National Budget by more than 24 millions.

The Resolutions.

The first resolution recommended that in each administrative county the County Valuation Committee should call a conference of the Assessment Committees and (or) the Rating Authorities with a view to determining in which areas the preparation of the new valuation lists should be commenced so as to come in force on April 1, 1928, and which shall be deferred to April 1, 1929.

And it was recommended that in coming to a decision on this matter the authorities concerned should have regard to the work to be done with the staffs available, and particularly to (*a*) the fact that the new provisions in the Act with respect to the rating of machinery and the exemption from rates of three-quarters of the net annual value of agricultural buildings will take effect in any rating area from the date on which the first new valuation list for the area comes into force; and (*b*) to the desirability of securing, so far as may be practicable, that the valuation lists for all rating areas within a poor law union shall come into force on the same date in order that the union common charges may be charged throughout the union on a uniform basis. A note to this recommendation calls attention to the fact that the County Rate Basis will not be superseded by the new valuation lists until April 1, 1929 (see the Act, Schedule vii, para. (10)).

The second resolution is of much more importance to the general public. After calling attention to the definition of "gross value" in section 68 of the Act, the Committee express the following opinions, which we number as in the Report.

(4) That the definition means that all properties valued for rating purposes must be valued upon the basis of their value *at the time of assessment* and not upon the basis of their value at any earlier time.

(5) That while recognising that since 1914 there has been a general rise in the rental value of property, including that of a residential character, the Committee is of opinion (*a*) that it would not be possible to apply to any particular class of property any flat rate of percentage representing that increase throughout England and Wales; (*b*) that the several districts differ so much in character from each other as to make it futile to endeavour to lay down a percentage of increase for any one district which it would be fair to apply without modification to another district; and (*c*) that rental value is governed by supply and demand.

Following upon the above opinions there follows the recommendation that the present level or standard of rental value for each class of property will best be ascertained after consideration of the returns which Rating Authorities are required to obtain under section 40, subsection (1), of the Act from the occupier, owner or lessee of *every* hereditament, and that when for each district such level or standard of rental value has been so ascertained the assessments (gross or net) of all hereditaments of a similar kind in the district, which may fairly be estimated to be of approximately the same annual value, should be made to conform to the standard, whether the property be actually let on rental or be in the occupation of the owner.

(6) That in fixing assessments, excessive purchase prices paid, or excessive rentals obtained, should be disregarded in so far as they point to an annual rental above the annual value of similar properties estimated in accordance with resolutions (3) and (4). (Resolution 3 only referred the Rating Authorities to the definition of "gross value" contained in the Act.)

(7) That as excessive rents should be disregarded, so also in assessing properties the rents of which have not been raised to the extent of the general level prevailing, the actual rent paid should be ignored and the property assessed uniformly with other similar property.

(8) That it is recognised that some landlords in various parts of the country have not increased the rents of their properties to an amount which the Rating Authority might expect a tenant to be prepared to pay, but it is not in the discretion of the Rating Authority to assess such properties at an amount lower than that at which neighbouring properties of the same kind are assessed.

The only criticism which it appears to us can be passed upon these recommendations (apart from any direction as to inspection of properties) does not affect the work of the Committee, but apply to the conditions prevailing in the country at the time this measure has been made to come into operation. The whole gist of the recommendations is contained in paragraph (5) (*c*), "Rental value is governed by supply and demand," and we ask ourselves how can supply and demand come into operation when a large number of properties remain subject to Rent Restriction? The laws of supply and demand as regards certain kinds of house property have been suspended ever since 1914, and the restriction has been steadily extended until it culminated in 1920 by the inclusion of houses of the *standard rent or rateable value* not exceeding £105 in the Metropolitan Police District and City of London, and elsewhere £78. The supply of those houses has therefore been limited and the demand for similar houses has been stimulated, and if, as the Committee suggest, the level or standard rental value has to be based upon the returns made in respect of every hereditament, where is the normal standard to be found? Within the limits of Rent Restriction there has been no free market at all; the supply has been limited by the retention of protected tenants, so that the demand has been forced up for houses of that character, and it is difficult to see how in such circumstances any normal rental values within those limits can be found. With a very large proportion of the houses tied as to rent, the question as to what are "excessive prices" or "excessive rents" cannot be based on supply and demand—it must be more or less guesswork—and before such a measure as the Valuation Act

was brought into force we cannot but think that the Rent Restriction Acts should have been repealed for a considerable period or that measure deferred.

There is also the further point that the time is ill-chosen when a large proportion of the population is still unhoused, and when some 200,000 more houses are still required. Rental value, as the Committee observe, should be governed by supply and demand, but surely that should be normal supply and demand and not a demand based on a lack of supply, conditions which make for excessive prices and rentals.

Weekly and Monthly Tenancies.

As regards properties let on weekly and monthly tenancies which include rates it is recommended that care shall be taken in converting the tenancy into a hypothetical yearly tenancy for the purpose of arriving at the gross value to be entered in the valuation list, to make an appropriate deduction in respect of those rates (including any water rate, which is a usual tenant's rate and is paid by the owner), and it is suggested it would be useful if the amount of the appropriate deduction were calculated for each 3d. of inclusive rent and were set out in a table or tables—regard, however, being had to the fact that the appropriate deduction will differ in different areas in so far as the amounts in the £ of the rates are different.

Short-Term Agreements and Leases.

In the case of properties held on agreements and leases for a comparatively short term, for which a gross value has to be entered in the valuation lists, it is suggested that (*a*) where the agreement was made or the lease granted not more than three years before the date of assessment, or, if made or granted before, could have been determined by notice given within that period; (*b*) no premium or other like consideration has been paid by the tenant; and (*c*) no improvements to the hereditament have been effected by the tenant, the following practice should *as a general rule* be followed in arriving at the gross value:—(i) Where the landlord undertakes or is liable for both internal and external repairs and insurance, the annual rent reserved under the agreement or lease should be taken as representing the gross value; (ii) where the tenant undertakes or is liable for internal repairs only, the annual rent reserved under the agreement or lease plus 5 per cent. of such rent should so be taken; (iii) where the tenant undertakes or is liable for both internal and external repairs, the annual rent reserved plus 10 per cent. shall so be taken.

In the case of all other agreements or leases for a comparatively short term the annual rent (if any) reserved under the lease should be reviewed in order to arrive at the gross value, and in such review regard should be had (*a*) to the date on which the agreement or lease was granted; (*b*) any premium which has been paid in a lump sum or which has to be paid from time to time or any other like consideration; (*c*) the extent to which the tenant undertakes or is liable for the maintenance of the hereditament; (*d*) any improvements to the hereditament effected by the tenant; (*e*) the annual rents paid for similar property in the neighbourhood; and (*f*) any other circumstances which may affect the gross value.

Freeholds and Long Leaseholds.

As regards freeholds and long leaseholds, the recommendations are (*a*) that where property is the freehold of the occupier or held by him on long lease, and where in either case the property might fairly be let upon a yearly tenancy, the rent which a yearly tenant might reasonably be expected to pay (if regard were had to the rents paid for similar properties actually let upon yearly tenancies) should be taken as representing the gross value; (*b*) that in dealing with properties of a kind that are rarely, if ever, let from year to year and to which the ordinary tests of rent paid, or comparable rents paid in the district, cannot be applied; (i) recourse may be had to interest on effective capital value as prima facie evidence of, or as a guide to answering the question as to, what rent a tenant may reasonably be expected to pay; but as so many considerations arise when deciding the percentage to be applied to the effective capital value it is not desirable to lay down any fixed percentage applicable throughout the country; (ii) in applying the views expressed in the foregoing paragraph due regard should be had to the age condition and present suitability of the hereditament for the purpose for which it is used, and the whole of the circumstances and conditions under which the owner has become the occupier should be taken into consideration.

Flats, etc., with Service.

In the case of flats, etc., let at rentals which include services, it is recommended that no standard rate of allowance for the cost of those services should be laid down, but the amount should be determined according to the merits and circumstances of each case.

The above is only a brief summary of some of the recommendations of the Committee, and the Report deals with many other subjects such as buildings let in self-contained flats, buildings let in lodgings, and apartments, farms, etc.

TIMBER SEASONING

The Movement of Moisture with Reference to Timber Seasoning. (H. M. Stationery Office.) Price 1s. 6d. net.

This is the first technical paper of the Forest Products Research Branch of the Department of Industrial and Scientific Research, by S. T. C. Stillwell, B.Sc., and is published under the Director of this branch, Mr. R. S. Pearson, C.I.E., F.L.S. The author's aim has been to investigate what actually occurs in timber during the process of evaporation of moisture, about which little is actually known, and as reliable data is likely materially to influence our views upon the commercial processes used in seasoning, the experiments should have a wide interest. The work undertaken is described in some thirty pages illustrated by diagrams, curves and formulæ. A series of experiments is described to show the rate of flow of moisture under defined conditions through plugs of timber of various kinds cut in various directions, from which it appears that the movement of moisture takes place in two ways: a movement in the wood substance itself, and a diffusion across the contained air spaces. The writer endeavours to establish a relation between flow of moisture and vapour pressure. The experiments are not concluded, and we look forward to a further publication which may put the results a little more within the grasp of the layman and the commercial man responsible for timber seasoning; a subject to-day of the greatest importance having regard to the prevalent use of immature soft woods.

Batsford's New Catalogue.

We have received a copy of Messrs. B. T. Batsford's comprehensive new catalogue of illustrated books on Architecture, Decorative and Fine Arts, Building, Social Life, Gardens, etc. The covers are decorated with reproductions of two charming water-colour drawings depicting street scenes in the eighteenth century, by Mr. C. H. B. Quennell. Copies of the catalogue may be obtained on application to 94, High Holborn, London.

"The Centre of the West."

We have received an attractive guide to Yeovil which has lately been issued by the Yeovil and District Chamber of Trade. Containing full information of the interesting country around this town, and illustrated by many delightful photographs, the guide has been written, we understand, by Mr. R. T. Warbis, of Messrs. Peders, Ltd., the makers of the Petter Industrial and Marine Oil Engine.

UNEMPLOYMENT INSURANCE.—II.

In our first notice of the Report of the Committee under the Chairmanship of Lord Blanesburgh, on Unemployment Insurance, we summarised the main recommendations put forward for a permanent Unemployment Insurance Scheme contained in the First Part of the Report, but the Second Part deals with what the Committee describe as subsidiary matters, but which they consider both of interest and importance. Having regard to the length of our first notice of this interesting Report, we cannot here touch upon more than a few of the questions dealt with in this part of the Report, but we set out the headings in full, as some of our readers may desire full information on some of these subjects and will see where they are dealt with in the Report. The headings are:—

I The scope of Unemployment Insurance in relation to—

(*a*) Contracting out (pars. 102-110).

(*b*) The excluded industries, *viz.*, agriculture, private domestic service, the permanent employment with the railway companies and of the local authorities (pars. 111–116).

(*c*) Certain minor matters (pars. 117–123).

II. The Waiting Period and the Continuity Rule (pars. 124–129).

III. The Trade Dispute disqualification (pars. 130–140).

IV. Dependants who should be recognised for the dependants' allowances (pars. 141–147).

V. The administration of State Benefit by Trade Unions and other Associations of workers (pars. 148–158).

VI. The effect of part-time work on benefit (pars. 159–161).

VII. Unemployment of disabled ex-Service Men (pars. 162–164).

VIII. Payment of surrender value to women contributors on marriage (pars. 165–166).

IX. Employer's statements as to the reasons for leaving work (pars. 167–169).

X. Use of Unemployment Fund for the creation of work (pars. 170–176).

XI. Co-ordination of Unemployment and Poor Law statistics (par. 177).

Contracting Out.

As regards contracting out, it is sufficient to say that the Committee did not favour it, and they found that the experience of the past few years had all but extinguished any desire for further contracting out, but to meet certain industries which considered they could frame a distribution of benefits more appropriate to the needs of their industry, it was suggested that the Minister in any case in which he was satisfied that the variation will in no way tend to the prejudice of the fund should have power to vary, within the scheme, the rules governing the distribution of benefit, in particular the rules as to the recognition of unemployment and partial unemployment in the interest of particular industries or other classes of insured persons.

The Excluded Industries.

As regards the excluded industries, the Committee recommended that argiculture and private domestic servants should continue to be excluded from the scheme. As regards the railway employees already excluded, the Committee indicated that on the principle that exclusion should only take place where the risk of unemployment is nil, they would have recommended their inclusion, but as they are excluded and the Trade Union Congress General Council did not urge their inclusion, the Committee acquiesced in the retention of the *status quo*, but considered this subject might require reconsideration in the future.

The Committee concurred in the exclusion of permanent employees of local authorities, and also found that the remaining exceptions and exemptions laid down in the Act of 1920 called for no change.

Minor Matters.

One or two matters of importance appear among the "Minor Matters" dealt with in

the Report. In the first place, it is suggested by the Committee that where the conditions of an industry, or section of an industry, are such that persons following it are normally not engaged in insurable work long enough to enable them to fulfil the condition of 30 contributions within two years, if such workers can show that in two successive years they have been unable for the above reasons to secure as much as a yearly average of 15 contributions, they should be entitled to claim exemption. But in making this recommendation in order to guard against any tendency on the part of employers to prefer exempted employees, the Report states that, if in accordance with the principles of the 1920 Act, the employers' contributions in such circumstances would not be refunded, this must continue as it is.

The Committee regarded with sympathy a proposal put forward by the Master Painters' Associations of England and Wales and of Scotland that contributions should not be payable in respect of apprentices except in the last year of their apprenticeship, but felt constrained to reject it.

The observations contained in the Report on the cases where insured contributors temporarily take uninsured work should be read with care. As regards those who temporarily go abroad, the Committee decided that nothing could be done, but as regards those undertaking uninsured work at home as a temporary measure, the Report points out that, if a person refuses uninsured work that is suitable for him, in any case he loses his unemployment benefit, but so long as that uninsured work is merely temporary he does not lose benefit if after it he becomes unemployed. The whole question turns on the question whether the change of employment is temporary or whether it had assumed a permanent nature. If a person, after a spell of uninsured work, can still show he has 30 stamps since the beginning of the previous two years, under the proposed scheme it will not be ineligible for benefit.

As regards outworkers, the Committee came to the conclusion they could not at present be included in the scheme.

This exhausts the "Minor Matters" referred to in the Report.

The Waiting Period.

As regards the waiting period and the continuity Rules, the Committee suggested no change. The "waiting period" is essential to the scheme and the continuity rules at present are (1) any three days of unemployment, whether consecutive or not, within a period of six consecutive days, are treated as a continuous period of unemployment, and (2) any two such continuous periods separated by a period of not more than six weeks are treated as one continuous period of unemployment. The Report points out that the rules are based on the principle that unemployed benefit should be paid to anyone who is unemployed at least half the time, but there are cases, where under the rules, it is possible for a person to be unemployed only two days each week, and yet qualify for the receipt of benefit for those two days. As the Committee decided that no change was necessary in the rules, it is unnecessary to consider the various suggestions laid before them, but it is interesting to note that it was estimated that a shortening of the waiting period to three days would involve additional annual expenditure of about £3,000,000, whilst to increase the six weeks "bridge" to three months would involve an increase of some £500,000 in the year.

The Trade Dispute Disqualification.

One of the most interesting sections of this Part of the Report is that which deals with the Trade Dispute Disqualification. To follow the recommendations of the Committee on this subject it is necessary to set out the two sections of the Act which at present represent the law. Section 8 subsection (1) of the Act of 1920, which substantially followed section 87 of the Act of 1911, provides "An insured contributor who has lost employment by reason of a stoppage of work which was due to a trade dispute at the factory, workshop or other premises at which he was employed shall be disqualified for receiving unemployed benefit so long as the stoppage of work continues, except in a case where he has, during the stoppage of work become *bona fide* employed elsewhere in the occupation which he usually follows or has become regularly engaged in some other occupation. Where separate branches of work which are commonly carried on as separate businesses in separate premises are in any case carried on in separate departments on the same premises, each of those departments shall for the purposes of this provision, be deemed to be a separate factory or workshop or separate premises as the case may be."

As the Report states, ever since 1911 there were complaints that the above provision excluded from benefit workers employed at an establishment where a trade dispute occurred in which they had no concern, as was the case in 1919, when a strike occurred of moulders, and the labourers connected with that employment were thrown out of work, although the labourers in no sense participated in that dispute and had no interest at all in its failure or success.

After a good deal of discussion and an attempt at an agreed clause between employers and workmen in 1924, the following amending section was passed (section 4 subsection (1) of the Unemployment Insurance (No. 2) Act, 1924):—"Subsection (1) of section 8 of the principal Act shall not apply in any case in which the insured contributor proves that he is not participating in or financing or directly interested in the trade dispute which caused the stoppage of work, and that he does not belong to a class or grade of workers members of which are participating in or financing or directly interested in the dispute, or that the stoppage is due to an employer acting in a manner so as to contravene the terms or provisions of any agreement existing between a group of employers where the stoppage takes place, or of a national agreement to either of which the employers and employees are contracting parties."

In passing, we must observe that a clause proposed by Sir John Simon appears to us far preferable to the above subsection; it was as follows: "Subsection (1) of section 8 of the principal Act shall not apply in any case in which the insured contributor can prove that neither he nor the trade union to which he belongs is participating in or financing or directly interested in the trade dispute which caused the stoppage," but the use of the term "trade union" was objected to and this clause was dropped.

The Committee recognised that this subsection can never take an entirely satisfactory form and they instanced one case showing this. The section does not disqualify a man actually unemployed at the date when a stoppage at his old works or in his industry takes place. The stoppage may have been organised by his own trade union and he may even have inspired it, and yet remain entitled to benefit, whilst his fellow trade unionists actually employed at the date of the stoppage, even those opposed to the stoppage, will lose all benefit. The Report suggests that such cases should in the interests of fairness be solved on some other principle than that now in force and suggests an examination of the question by the Minister in consultation with representatives of employers and employed, but the Committee did make one concrete suggestion on this part of the section which relates to "grades and classes," apparently inspired by the case of certain deputy and safety men in the recent coal stoppage. Men of these grades or classes were held disentitled to benefit everywhere, by reason of the fact that in some districts members of the grade or class were members of the Miners' Union affiliated to the Miners' Federation, and as such were participating in or financing the dispute. The suggestion of the Committee was that subsection (1) of section 4 of the Act of 1924 should be amended by limiting the reference to "grade and class" to the particular premises in which the insured contributor is employed, thus bringing the subsection in line with subsection (1) section 8 of the Act of 1920. Another important recommendation of the Committee relates to the final portion of subsection 1 of section 4 of the Act of 1924, which relates to cases where an employer has contravened a "group" or national agreement. The Committee recommend the repeal of this provision altogether. The reasoning offered in evidence against it may be summarised as follows: The merits of the dispute are involved, a question too remote or too difficult for unemployment insurance to concern itself with. It discourages long agreements, and tends to disturb industrial stability in consequence; Courts of Referees and the Umpire are not set up to interpret industrial agreements; it discriminates against the employer with no corresponding discrimination against the employees, for although when an employer breaks an agreement his workers can obtain benefit, on the other hand, when the workers break an agreement, though they themselves are disqualified, the employer may be unable to fill their places, since the vacancies are "due to a trade dispute" and may be refused, under the law, by other workers with impunity.

The Committee considered that collective bargaining and the authority and usefulness of associations both of employers and workers would be strengthened by its omission.

Dependents' Allowances.

The Committee recommended some minor changes in respect of the classes of dependents entitled to benefit, but in the main that the present classes should be retained. These are (1) a married man in respect of his wife who is living with him or who is wholly or mainly maintained by him; (2) an unmarried person or widower or widow in respect of a female person who (*a*) is residing with him or her for the purpose of having the care of his or her dependent children, and (*b*) is maintained by him or her; (3) to an unmarried man or widower in respect of a female person who is and has been living with him as his wife; (4) to a married woman in respect of an invalid husband who is prevented by physical or mental infirmity from supporting himself and is being maintained wholly or mainly by his wife; (5) to an unmarried person (not being a person entitled to dependent's benefit otherwise than in respect of dependent children) who has living with him and is wholly or mainly maintaining his widowed mother; (6) to a man or woman in respect of each dependent child who is wholly or mainly maintained at his or her cost.

The principal alteration recommended by the Committee is in relation to the third of the above classes, as it is suggested that in such unions as there described no benefit shall be given where there are no children. In class (5) it is also suggested that dependent mothers who are unmarried and widowed step-mothers should be included, provided they were really dependent on the claimant.

Also where both the claimant parents are dependent upon him and the father is permanently disabled and unable to work, it is recommended that a payment should be allowed in respect of the mother, and the Committee expressed a hope that where the claimant whose wife is incapacitated, *e.g.*, in a lunatic asylum, or who has deserted her husband, has a housekeeper to look after the children, the latter should be included. In all the above cases dependency for at least six months before the claim must be essential, and only one adult dependent is allowed in respect of any claimant. Before leaving this subject we may point out that as regards the rates of benefit which we set out in our last article the effect of the changes recommended is that an adult male claimant with a wife or other adult dependent has his benefit increased by 1s., while a single man without dependents has his benefit reduced by a like amount.

The Effect of Part-Time Work on Benefit.

We cannot in our space go through all the subjects the headings of which we give at the beginning of this article, but in conclusion we must allude to some observations contained in the Report on the effect of part-time work on benefit. Representations were made to the Committee that hardship occurs where unemployed persons who prefer work to idleness accept

odd employment offered to them only to find that they have disqualified themselves for benefit, and perhaps are worse off than if they had refused work. The Report states this arises in two ways: (1) Where a man obtains continuing part-time work; and (2) where the pieces of work he obtains are casual and short. The position at present is as follows: If a man has previously taken part-time work with continuity as well as his regular employment, if he loses his regular work he can still draw benefit and continue the part-time work provided his earnirgs must not exceed £1 a week, or 3s. 4d. a day. If, however, before becoming unemployed he only did his regular work, but takes up part-time work on becoming unemployed, then he will lose his benefit. The Committee recommend that a change shall be made in this matter to the effect that a man shall not lose his benefit if the work which he takes is really work which is commonly carried on as a subsidiary occupation and does not bring him in more than £1 a week or 3s. 4d. a day; that is to say, the necessity of his having done the part-time work together with regular work before losing his regular work is dispensed with. As regards the second case where the pieces of work a man obtains are casual and short the Committee could make no recommendation, but they pointed out that such cases must be few, as except in the subsidiary occupations, dealt with above, earnings of less than a days' benefit are not common.

We have endeavoured to give some idea of the main features of this very important Report, and we think from what we have said it must be apparent that it is full of interest and requires careful study.

Building in Belfast.

The Belfast Co-operative Society is about to construct a large garage, which will house 100 motors when completed, and is to be modern and up-to-date in every respect. Other extensions are contemplated to follow.

Census of England and Wales.

The General Report on the Census of England and Wales, 1921, published by H.M. Stationery Office, price 5s., completes the series of official volumes which have been issued in respect of the 1921 Census. It provides a general commentary upon the census statistics and deals with the country as a whole in much the same way as the Report issued with each county volume dealt with the local figures, though on a necessarily larger scale. It also embraces those subjects of national interest which could not be included in the county series The principal subject headings are as follows:—Population: numbers, growth and distribution; Housing; Sexes, Ages and Marital Condition; Occupations and Industries; Birthplace and Nationality; Dependency, Orphanhood and Fertility; Welsh Language; Workplaces—in relation to residence.

Housing accommodation is discussed from various points of view. Attention is called to the fact that, notwithstanding the house shortage, the total number of rooms available for habitation is greater in relation to the population than it was in 1911. At the same time, families are, on the whole, smaller than they were ten years ago, and since small families are able to command a higher standard of housing than the larger, they have absorbed a greater share of the available house room than they had in 1911. It is largely to this change and to the uneven distribution of accommodation throughout the country that the present situation is due. The proportion of population living under the overcrowded conditions of more than two persons per room has increased from 9.1 per cent. in 1911 to 9.6 per cent. in 1921 for the country at large; in Northumberland and Durham, however, as much as 30 per cent. of the population are placed in the overcrowded category, while in London the proportion is as high as 16 per cent.

NEW BUILDINGS IN LONDON

Croydon.—EXCHANGE.—On a site at Addiscombe, H.M.O.W. are about to erect a new telephone exchange. Tenders are now being invited.

Fulham.—EXCHANGE.—H.M.O.W. are inviting tenders for the erection of a telephone exchange in Fulham.

Goodmayes.—The Trustees of the Congregational Church have signed a contract with Messrs. H. Knight & Sons, 16, Bruce-grove, Tottenham, N., for a new church, to be erected from the designs of Messrs. George Baines & Son, FF.R.I.B.A., A.I.Struct.E., architects, 121, Victoria-street, S.W.1.

Gray's Inn-road.—CLINIC.—A new medical clinic, which is estimated to cost £300,000, is to be constructed next to the Royal Free Hospital in Gray's Inn-road, W.C.1.

Hendon.—LIBRARY.—The Urban District Council has approved plans for the erection of a new library in Central Hendon, estimated to cost £17,000.

Lewisham.—CONVERSION.—The Hippodrome, Lewisham, is to be converted into a cinema.

Marylebone Road.—EXTENSIONS.—The committee of the Queen Charlotte's Hospital are appealing for £250,000 for various extension works. A new block of buildings adjacent to the existing hospital, containing special wards, is to be erected. An isolation flat of 25 beds, for puerperal fever cases, is to be provided, together with modern wards, fully equipped, for another 75 beds; single private rooms, and completely equipped pathological laboratories.

Stepney.—SCHOOL.—The London County Council are about to erect an open-air school for tuberculous children in Stepney-green.

Tooting.—PREMISES.—A commencement has been made on the new drapery and footwear departments, Upper Tooting-road, S.W., for the Royal Arsenal Co-operative Society, Ltd. Messrs Matt. T. Shaw & Sons, Ltd., are to erect the steelwork; Messrs. Shaws Glazed Brick Co., Ltd., supplying terra-cotta facings. The general building work is by the Society's works department Mr. S. W. Ackroyd, A.R.I.B.A., 148, Powis-street, Woolwich, is the architect.

Westbourne-street. — PREMISES. — Messrs. C. Rickards, Ltd., have obtained the consent of the Paddington Borough Council to the erection of a building over Westbourne-street-mews, W.2.

West Ham.—FLATS.—The West Ham Borough Council are to invite tenders for the building of 270 flats on their Manor-road housing site

Westminster. — WAREHOUSE. — Messrs. Roberson's, Ltd., of 217, Knightsbridge, are building new premises in Rochester-row and Vincent-square, S.W.1, to the designs of their architect, Mr. W. Railton. Messrs. Young & Co., 6, Queen Anne's-gate, Westminster, S.W., are supplying the steel-framed construction for the building.

Woolwich. — ALTERATIONS. — Premises in New-road, Woolwich, and George-street, Woolwich, are being altered for the Royal Arsenal Co-operative Society, Ltd. Mr. S. W. Ackroyd, A.R.I.B.A., is the architect.

Walthamstow.—HOUSES.—The Warner Estate, Ltd., have entered into a contract for the erection of 400 houses on their town planned estate. The builders are the Law Land Building Department, Ltd., Norfolk Street, Strand, W.C.2.

Woolwich.—SCHOOL.—Messrs. Triggs and Co., builders, of Lambourn Works, Mackay Road, Clapham, have secured the contract for erection of an open-air school, on a site between 66 and 82, Fort Road, Woolwich. The work is for the London County Council.

CLINKER ASPHALT PLANT AT BRIGHTON

On Friday last a large party of municipal engineers, Press representatives and others, at the invitation of Messrs. Millars' Machinery Co., Ltd., paid a visit to the refuse destructor works of the Brighton Corporation, at Hollingdean, for the purpose of inspecting the new clinker asphalt plant which has just been laid down there by the company. The party were conducted around the works by Mr. David Edwards, M.Inst.C.E., F.S.I., the Borough Engineer and Surveyor, who explained that the Brighton Corporation had adopted the method of destruction of refuse by combustion, as being in every respect preferable to any alternative method of disposal, such as dumping. Under the guidance of Mr. Edwards, the whole process of disposal was witnessed by the visitors, from the arrival of the refuse in the wagons to its transformation into asphalt by means of the recently-installed plant. The sequence of operations is briefly as follows: The refuse, which contains a high proportion of paper and metal, is fed to the combustion chamber through holes in the floor of the furnace house. The metal constituents are afterwards separated and compressed into rectangular cakes, each weighing about half-a-hundredweight, in which form they are sold at a present price of about 18s. a ton. The clinker is then conveyed to the crushing and mixing plant, and finally made into asphalt.

The lay-out of the plant, consisting of Millars' standard units, was designed to meet the requirements of the City Engineer and Surveyor to deal with clinker having a very high percentage of metal, such as iron nails and strips, broken domestic utensils, tins, etc. Much of this metal content is only partially fused when passing through the destructor and is difficult to extract. The clinker is delivered in large pieces to the plant. The whole equipment of the plant falls into two sections: (a) Crushing, separating, screening, grading and storage section; (b) a drying, heating and mixing section for the manufacture of asphalt from the prepared clinker. The whole plant is conveniently arranged so that the hot asphalt can be delivered directly into lorries standing on the road in the destructor works, while at the same time the screened and graded raw material can be loaded into lorries standing on the higher road on the opposite side of the plant.

The separating of the iron from the crushed clinker in the crushing and grading section of the plant, owing to the high percentage of iron in the clinker, required special treatment. To ensure the highest possible efficiency two separators are fitted, one at the feed inlet of the screen and one at the discharge from the screen to deal with the rejects. The magnetic separator is operated by a special controller, and takes out approximately 70 per cent. of the iron from the clinker.

The second section of the plant for drying, heating and mixing the graded clinker embraces a standard drying, heating and mixing plant mounted at such a height as to discharge directly into lorries standing on the road.

Each of the two sections of the whole plant is arranged for independent driving. The crushing and grading section being driven by a 45 b.h.p. steam engine, while the drying, heating and asphalt section of the plant is driven by a 25 b.h.p. engine.

Following the inspection of the plant, luncheon was taken at the Old Ship Hotel, after which there were some short speeches. Mr. James White, LL.D., chairman of Millars' Machinery Co., Ltd., proposed the toast of "The Corporation of Brighton," and the Mayor, Councillor R. Major, replied.

Mr. David Edwards, called upon for a speech, said that the Brighton Corporation, in their clinker asphalt plant at the destructor works, had an asset of real value. He estimated that with it he could carry out road works at half the cost of operations at contract price.

RATES OF WAGES IN THE BUILDING TRADE

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Masons	Bricklayers.	Carpenters Joiners	Plasterers.	Slaters.	Plumbers.	Painters.	Labourer.
Aberdare	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Accrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Alfreton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Alnwick	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Altrincham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ashford (Kent)	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Ashington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ashton-under-Lyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Aylesbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Aylsham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Banbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Barnsley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barnstaple	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Barrow-in-Furness	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Barry	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Basingstoke	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bath	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bedford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Berwick	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bexhill	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Birkenhead	1/10	1/10	1/10	1/11	1/10	1/10	1/10½	1/4½
Birmingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bishop Auckland	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackburn	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Blackpool	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bolton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bournemouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bradford	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bradford-on-Avon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Braintree	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Brentwood	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bridgwater	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Bridlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brighton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bristol	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bromsgrove	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bromyard	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0½
Bungay	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Burnley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Burton-on-Trent	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Bury	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Buxton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Cambridge	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Canterbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Carlisle	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chatham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5	1/1½
Chelmsford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Cheltenham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Chester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chesterfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Chorley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Cirencester	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/1
Clacton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Colchester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Cranbrook	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Crewe	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Cromer	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Darlington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Deal	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Denbigh	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Derby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Devizes	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Dewsbury	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Doncaster	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Dorchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Dorking	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Dovercourt	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Driffield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Droitwich	1/6½	1/6½	1/5½	1/6½	1/6½	1/6½	1/6½	1/2
Dudley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Durham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Eastbourne	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
E. Glam.(Mon. Val)	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ely	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Exeter	1/7	1/7	1/7	1/7	1/7	1/7	1/6	1/2½
Exmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Fakenham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Felixstowe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Folkestone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Frome	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Glossop	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Gloucester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Godalming	1/5	1/5	1/5	1,5	1/5	1/5	1/5	1/1
Goole	1/7	1/7	1/7	1/7	1,7	1/7	1/7	1/2½
Gosport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grantham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Great Yarmouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grimsby	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Guildford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Halifax	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Harpenden	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Harrogate	1/8	1/8	1/8	1/8	1/8	1,8	1/8	1/3½
Hartlepools	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1,3½
Harwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Hastings	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hatfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Hednesford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hereford	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Herne Bay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1,4½	1/0½
Hertford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Hitchin	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Hoddesdon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Holt	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Huddersfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Hull	1/8	1/8	1,8	1/8	1/8	1/8	1,8	1/3½
Hunstanton	1/4½	1/4½	1/4½	1/4½	1,4½	1/4½	1/4½	1/0½
Huntingdon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Isle of Wight	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0½
Ipswich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Keighley	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Kettering	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Kidderminster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
King's Lynn	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Lancaster	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Leamington Spa	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leeds	1/8	1/8	1/8	1/8	1/8	1,8	1/8	1/3½
Leicester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Leighton Buzzard	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lichfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Lincoln	1/8	1/8	1/8	1/8	1/8	1,8	1/8	1/3½
Littlehampton	1/5	1/5	1/5	1/5	1/6	1/5	1/5	1/1
Liverpool	1/10	1/10	1/10	1/11	1/10	1/10	1/9½	1/4½
Llandudno	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Llanelly	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
London:								
12 m. radius	1/9½	1/9½	1/9½	1/9½	1/9½	1/9½	1/8½	1/4½
12–15 m. radius	1/9	1/9	1/9	1/9	1/9	1/9	1/8	1/4
Loughborough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Lowestoft	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Luton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Macclesfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Maidstone	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Malvern	1/6½	1/6½	1/6½	1,6½	1/6½	1/6½	1/6½	1/2
Manchester	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Mansfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Margate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Market Harb'rough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Matlock	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Melton Constable	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Melton Mowbray	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Merthyr Tydfil	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Middlesbrough	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newark	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Newbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newcastle-on-Tyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Newcastle-ur-Lyme	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
New Forest	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Newmarket	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Newport, Mon.	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Northampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Norwich	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Nottingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Nuneaton	1,8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Oakham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Oldham	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Oxford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Paignton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Peterborough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Plymouth	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3½
Pontypridd	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Portsmouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Preston	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Ramsgate	1,4½	1/4½	1/4½	1/4½	1/4½	1,4½	1/4½	1/0½
Reading	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Redcar	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Redditch	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Reigate	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Retford	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Ripon	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Rochdale	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Rochester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Rugby	1/8	1,8	1/8	1/8	1/8	1/8	1/8	1/3½
Saffron Walden	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
St. Albans	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Helens	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Sawbridgeworth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Saxmundham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0½
Scarborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Sevenoaks	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Sheffield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Shrewsbury	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Sittingbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Southend-on-Sea	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
South Shields	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stevenage	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Stockport	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stockton-on-Tees	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stoke-on-Trent	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Stourbridge	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stourport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stowmarket	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Stratford-on-Avon	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stroud	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Sunderland	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Swaffham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Swansea	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Swindon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2½
Tamworth	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Taunton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Thetford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Torquay	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Totnes	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Trowbridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Tunbridge Wells	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Uttoxeter	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wakefield	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Walsall	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wallsend	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Warminster	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Warrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Warwick	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wells (Norfolk)	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Welwyn Gar. City	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
West Bromwich	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Weston-sup.-Mare	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Weymouth	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/1
Whitby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wigan	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Winchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Windsor	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wisbech	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wolverhampton	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Woodbridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Worcester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Worksop	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Worthing	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1
Wrexham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wroxham	1/3½	1/3½	1/3½	1/3½	1/4	1/3½	1/3½	11½
Wymondham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0½
York	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½

(For rates of wages in the Building Trade in Scotland, see page 754.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.; Engineer, E.; Borough Architect, B.A.; Architect, A.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

MAY 9.—**Edinburgh.**—GARAGE.—Structural steelwork required for garage in Bathgate-park, for Scottish Motor Traction Co. G. Fraser, Consulting E., 13 Rutland-sq.

MAY 9.—**Erpingham.**—COTTAGES.—East Runton, 4; Cley, 2; Baconsthorpe, 2; Felbrigg, 2, for R.D.C. S.

MAY 9.—**Evesham.**—HOUSES.—Eight at Rous Lench, for R.D.C. R. J. Atkinson, S. Dep. £2 2s.

MAY 9.—**Glamorgan.**—IMPROVEMENTS. New school at Rhiwbina, near Cardiff; teacher's house at Rhydri, near Caerphily; mining institute at Bridgend; levelling playgrounds, retaining walls, playshed, etc., at Rhiwfawr council school, near Ystalyfera, for C.C. T. Mansel Franklen, Secretary of E.C., Cardiff.

MAY 9.—**Glasgow.**—INSTALLATION.—Electric light in Cardonald school, Paisley-rd., Cardonald; Wellfield school, Edgefauld-rd., Springburn; Yoker school, Dumbarton-rd., Yoker, for E.C. J. Clark, Director of Education.

MAY 9.—**Goole.**—BAND STAND.—Erection of, for the U.D.C. J. H. Castle, Town Surveyor, Municipal Offices, Goole.

MAY 9.—**Hexham.**—HOUSES.—40 of flatted type, on Chare Way-lane site, for U.D.C. Knowles, Oliver and Leeson, A's.

MAY 9.—**Moorthorpe.**—CHURCH, &c.—Holton & Fox, Corporation-st., Dewsbury.

MAY 9.—**Solihull.**—HOUSES.—Non-parlour type., as follows:—Elmdon, 4, Damson-la.; Balsall, 12, Meerend, for R.D.C. C. H. Cook, C. Dep. £1 1s. each.

MAY 9. **Sunderland.**—HOUSES.—12, at Humbledon estate, and 10 at Clanny-st., for C.B. B.E. Dep. £2 2s. each.

MAY 9.—**Thorne.**—HOUSES.—12 at Bearswood Green, Hatfield, and 8 at Low Levels, Hatfield, for R.D.C. H. Plewes, A. and S. Dep. £2 2s.

MAY 9.—**Thorne.**—PAINTING.—Outside of Poor Law Institution for B.G. G. H. Newborn, C.

MAY 10.—**Askern.**—HOUSES.—For West Riding E.C. Education Department, County Hall, Wakefield.

MAY 10.—**Darton.**—ELECTRIC LIGHTING.—At Darton Kexborough New School, for West Riding E.C. The Education Department, County Hall, Wakefield.

MAY 10.—**Essex.**—ELEMENTARY SCHOOL.—Erection of at Laindon, for the Essex E.C. Jno. Stuart, F.R.I.B.A., County Architect, Springfield Old Court, Chelmsford. Dep. £2 2s.

MAY 10.—**Gildersome.**—PAINTING.—Exterior of manse and caretaker's house at Gildersome Baptist Chapel. J. Whitley, Moorhead.

MAY 10.—**Great Stambridge.**—ENLARGEMENT.—Council School for the Essex C.C. County Architect, Springfield Old Court, Chelmsford. Dep. £1 1s. F. H. Owers, County Accountant, Duke-st.

MAY 10.—**Liverpool.**—HOUSE.—At Llanforda, near Oswestry, for Corporation. The Water Engineer, 55, Dale-st., Liverpool.

MAY 10. — **London.** — CONVERTING. — Portion of building at institution in High-rd., Leytonstone, E. 11, into a Children's Church, for Bethnal Green B.G. C. Faulkner Jones, C., Guardians' Administrative Offices, Bishops-rd., E. 2. Dep. £2 2s.

MAY 10. — **Newcastle-upon-Tyne.** — FENCING. — Wrought-iron fencing to 462 houses on Cowgate housing estate, and 230 houses on Walker housing estate, for T.C. Housing Architect, 18, Cloth Market.

MAY 10.—**Newcastle-upon-Tyne.**—INSTALLATION.—Electric lighting to 100 houses on High Heaton estate, 29 houses Walker-rd., for T.C. Housing Architect, 18, Cloth Market. Dep. £1 1s.

MAY 10. — **Newcastle-upon-Tyne.** — PAINTING.—Externally 98 houses on Walker housing estate, and 157 houses on Pendower housing estate, for T.C. Housing Architect, 18, Cloth Market.

MAY 10.—**Penistone.** — EXTENSION. — To "Bella Vista," Hartcliff, for P. G. Wadsworth. T. H. Broomhall, A.R.I.B.A., A. & S., Midland Bank-chambers, Market-hill, Barnsley.

MAY 10.—**Saddleworth.**—ADDITIONS.—Two additional class-rooms at Saddleworth Uppermill Council school, for West Riding E.C. Education Department, County Hall, Wakefield.

MAY 10.—**Wallingford.**—REDECORATION.—To houses in Harwell-rd., Bicarage-rd., St. Peter's-rd. and South-rd., Didcot, for R.D.C. P. C. A. Slade, C., 7, St. Martin's-st., Wallingford, Berks.

MAY 10.—**Wolverhampton.**—BUILDING.—Maternity and septic block at Wolverhampton and District Hospital for Women. Brook Kitchen, F.R.I.B.A., 2, Millbank House, S.W.1. Dep. £3 3s.

MAY 11.—**Bethany.**—CHAPEL.—Taking down of existing buildings and the erection of a new Calvinistic methodist chapel (Bethany), vestry and other contingent works, Ammanford. J. Owen Parry, F.S.I., etc., A., Arcade-chambers. Dep. £2 2s.

MAY 11.—**Bramgrove.**—COTTAGES.—28, at Broad-st., Sidemoor, for U.D.C. G. H. Gadd & Son, A.'s Town Hall-chambers.

MAY 11.—**Colchester.**—Offices.—Sanitary block and offices at the new generating station, Hythe, for T.C. H. Collins, B.E. and S.

MAY 11. — **Devon.** — RENOVATIONS. — To Council schools, for the C.C.: Bradford, Brattonfleming, Chivelstone: East Prawle, Chudleigh, Dawlish West: Cockwood, Ermington, Great Torrington, Highampton, Inwardleigh, Kingston, Molland, Moretonhampstead: Greenhill, Moretonhampstead: Pound-st., Ringmore, Teignmouth: Shaldon, West Down. C.A., 97, Heavitree-rd., Exeter.

MAY 11.—**Dewsbury.**—WALL.—Masons' work required in erection of wall near Highfield estate, Halifax-rd., for C.B. H. Dearden, A.R.I.B.A., B.S.

MAY 11.—**Llanbister.**—SCHOOL.—For about 80 children and teacher's house, at Llanbister, Radnorshire, for C.C. T. W. Wishlade, C.S., Llandrindod Wells.

MAY 11.—**London.**—DEMOLITION WORK AND TAR-PAVING PATHS.—(*a*) Pulling down and clearing away the branch institution; (*b*) renewing tar-paving to paths for the Guardians of the Wandsworth Union. F. J. Curtis, Clerk, Union Offices, St. John's Hill, Wandsworth, S.W.18.

✱MAY 11. — **Radnor.** — SCHOOL AND HOUSE.—Erection of a school (for about 80 children) and teacher's house at Llanbister, Radnorshire, for the County Education Committee. T. W. Wishlade, County Surveyor, Llandrindod Wells.

MAY 12.—**Glasgow.**—HEATING.—Heating system at Scotstoun school. Moray-av., Scotstoun, for E.C. J. Clark, Director of Education. Dep. £1 1s.

MAY 12.—**Lindsey.**—SCHOOL.—At Scunthorpe and Frodingham, for County E.C. Scorer and Gamble, architects, Bank Street-chambers, Lincoln. Dep. £2 2s.

MAY 12.—**Litherland.**—SCHOOL.—For 600 pupils for Lancashire E.C. S. Wilkinson,, C.A., F.R.I.B.A., 16, Ribblesdale-pl., Preston. Dep £2.

MAY 12.—**London.**—PAINTING.—External and repairs to roofs, &c., at Council's Public baths, Kennington-rd., also painting railings at Lambeth Cemetery, Blackshaw-rd., Tooting, for Lambeth B.C. O. Cattlin, B.E.

✱MAY 12. — **London.** — ROADS. — Works in connection with the making up of the existing builders roads on the Council's Broomfield housing estate, West Norwood, for the Lambeth Borough Council. Osmond Cattlin, M.Inst.C.E., (Chartered Civil Engineer) Borough Engineer, Town Hall, Brixton-hill, S.W.2. Dep. £1 1s.

MAY 12.—**Nelson.**—SCHOOL.—Secondary school, for Lancashire E.C. S. Wilkinson, F.R.I.B.A., C.A., 16, Ribblesdale-place, Preston. Dep. £2.

MAY 12.—**Rowley Regis.**—HOUSES.—68 houses, together with construction of roads, sewers, surface water drains, fencing, &c., for U.D.C. W. F. Edwards, L.R.I.B.A., 1, Newhall-st., Birmingham. Dep. £2 2s.

MAY 13.—**Kingsbridge.**—HOUSES.—Six, at Thurlestone and six at Stokenham, for R.D.C. N. Harris, S. Dep. £1 1s.

MAY 13.—**Redruth.**—DECORATIONS.—Internal and repairs to certain portions of West Cornwall Miners' and Women's Hospital. L. Winn, L.R.I.B.A., Chartered Architect, Truro.

MAY 13.—**Rowley Regis.**—HOUSES.—22 parlour and 58 non-parlour, on Stile House Farm Housing estate, for U.D.C. D. Wright, C.

✱MAY 13.—**Shrewsbury.**—ALTERATIONS to Council schools, namely:—Melverley; Wellington, Constitutional-hill; Wentnor, Stiperstones, for Salop C.C. The Secretary, Education Dept., County Buildings, Shrewsbury. Dep. £2 2s.

MAY 14.—**Balfour.**—RENEWAL.—Part of steading roofs, etc., at farm of Mains of Balfour, Aboyne, for Estate. Cochran & Macpherson, Advocates, 152 Union-st., Aberdeen.

MAY 14.—**Buxton.**—PAINTING.—External and internal and decoration of hot baths, St. Ann's Well, natural baths, etc., for T.C. F. Langley, B.E.

MAY 14.—**Carlisle.**—COTTAGE. — At Corporation Waterworks, Castle Carrock, for T.C. P. Dalton, A.R.I.B.A., City S., 18, Fisher-st.

MAY 14.—Corwen.—PAINTING, &c.—Zion Calvinistic Methodist Chapel and committee rooms. E. Derbyshire.

✱MAY 14.—**Kingsomborne.**—COTTAGES.—Erection of 10 cottages, for the Stockbridge R.D.C. H. S. Sawyer, Queen Anne Chambers, Winchester. Dep. £1 1s.

MAY 14.—**Preston.**—EXTENSION.—Ribble Power Station buildings, for C.B. J. A. Robertson, Consulting E., Brazennose House, 20, Brazzennose-st. Manchester. Dep. £2 2s.

MAY 14.—**Salford.**—INSTALLATION.—Electrical at Drinkwater-park hospital, Prestwich, for C.B. Medical Officer of Health, 143, Regent-rd.

MAY 14. —**Salford.**—BUILDINGS.—Two static transformer sub-station buildings in Prestwich and Pendleton for C.B. City Electrical E. Electrictiy Works, Frederick-rd. Pendleton.

MAY 14.—**Wilton.**—HOUSES.—16 parlour and 12 non-parlour type on part of Wilton Fair Ground; also for making of roads, sewers and the laying of gas and water mains, for T.C. Bothams & Brown, As. Chipper-lane, Salisbury. Dep. £2 2s.

MAY 16.—**Arva.**—CHURCH.—At Arva, Co. Cavan, William H. Byrne & Son, architects, 20, Suffolk-st., Dublin. Dep. £2 2s.

MAY 16.—**Birkenhead.**—DISTRICT FIRE STATION, DRILL TOWER and 8 FIREMEN'S HOUSES on land fronting Laird-st. for C.B., C. Brownridge B.E. and S. Dep. £2 2s.

MAY 16.—**Essex.**—PAVILION WARD.—At the Hospital in Stifford Long Lane, near Grays, Essex, for the Orsett, Joint Hospital Board. Chas. M. Ansell, C. to the Board, 11, Chadwell-rd., Grays, Essex. Dep. £5 5s.

MAY 16.—**Maesmerry.**—ADDITIONS.—Also alterations to Public school for East Lothain E.C. R. and A. K. Smith, 44, Queen-st., Edinburgh, surveyors.

MAY 16.—**Newry.**—COTTAGES.—Forty, at Pound-rd., for U.D.C. C. Blaney, Town S. Dep. £1.

MAY 16.—**Penistone.**—PAINTING.—External and internal painting, paperhanging and whitewashing, for Governors. Clerk.

MAY 17.—**Addiscombe.**—TELEPHONE EXCHANGE.—Erection of for the Commissioners of His Majesty's Works. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s. (Cheques payable to the Commissioners.)

✱MAY 17.—**Carshalton.**—HOUSES.—Erection of 40 parlour, 72 non-parlour and 28 in two lettings, for the U.D.C. Hugh Macintosh, F.R.I.B.A., 1, Imperial Buildings, East Croydon. Dep. £3 3s.

MAY 17.—**Colwyn Bay.**—DWELLINGS.—Thirty-two, at Berthyglyd-rd., Llysfaen, for U.D.C. W. J. Dunning, E. and S. Dep. £3 3s.

MAY 17.—**Farsley.**—ADDITIONS.—Also alteration, at Farsley Frances-st., infants' school, for West Riding E.C. E. H. Steel, Yorkshire Penny Bank-chambers, Shipley.

MAY 17.—**Newcastle-upon-Tyne.**—FRONTS. — Shop fronts to 13 combined shops and houses, in course of erection at corner of Stephenson-rd., and Benton-rd., on High Heaton housing estate, for T.C. Housing Architect, 18, Cloth Market. Dep. £2 2s.

MAY 17.—**Pontypridd.**—HOUSES.—50 non-parlour on Duffryn Lower site, Rhydfelen, for U.D.C. W. E Lowe, E. and S. Dep. £2 2s.

MAY 17.—**Ripon.**—ALTERATIONS AND ADDITIONS—The Mechanics' Institute, for the Commissioners of His Majesty's Works. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s. (Cheques payable to the Commissioners.)

MAY 17.—**Thomastown.**—RESTORATION.—Building for Garda Siochana at Thomastown, Co. Kilkenny, for Commissioners of Public Works. T. Cassedy, Secretary, Office of Public Works, Dublin. Dep. £1.

MAY 17.—**Thorne.**—ELECTRIC LIGHTING. — At Thorne new school, for West Riding, E.C. Education Department, County Hall, Wakefield.

MAY 18.—**Birkenhead.**—ROOM.—Bus waiting room on land situated in Oakenholt-rd., Moreton, for C.B. C. Brownridge, B.E. and S. Dep. £1 1s.

MAY 18.—**North Finchley, N.**—BRANCH POST-OFFICE AND TELEPHONE EXCHANGE.—Erection of, for the Commissioners of His Majesty's Works, Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s. (Cheques payable to the Commissioners.)

MAY 19. — **Fulham.** — TELEPHONE EXCHANGE.—Erection of, for the Commissioners of His Majesty's Works. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s. (Cheques payable to the Commissioners.

MAY 19. — **Woolwich Road.** — NEW NURSES' QUARTERS.—Erection of, at the Greenwich and Deptford Institution. Louis Jacob, F.S.I., Quantity Surveyor, 58, Gordon-sq., W.C.1. Dep. £3.

MAY 20.—**Retford.**—EXTENSIONS.—To Rampton State Institution for the Commissioners of His Majesty's Works. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

MAY 21.—**Nobber.**—SCHOOL.—At Nobber. L. Lenehan, C.C., Nobber, County Meath.

MAY 23.—**Canterbury.**—SCHOOL.—Practical Instruction Materials for Boys. T.C.

MAY 24.—**Stratford.**—EXTENSION of "Maryland" Telephone Exchange, for the Commissioners of His Majesty's Works, Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s. (Cheques payable to the Commissioners.)

✱MAY 25.—**Birmingham.**—TELEPHONE EXCHANGE.—Erection of, for the Commissioners of His Majesty's Works, Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s. (Cheques payable to the Commissioners.)

✱MAY 25.—**Ramsgate.**—FENCING AND GATES.—Supply and erection of, for the Corporation. The Borough Engineer, 2nd Floor, Albion House, Ramsgate

✱MAY 26. — **Primrose Hill.** — TELEPHONE EXCHANGE.—Erection of, for the Commissioners of His Majesty's Works, Contracts Branch, King Charles-st. London, S.W.1. Dep. £1 1s. (Cheques payable to the Commissioners.)

MAY 27.—**Stirling.**—HOUSES.—96 at Bannockburn rd., for T.C. A. H. Goudie, B.E. Dep. £1.

MAY 30.—**London.**—DWELLINGS.—Four blocks for L.C.C. at Wapping estate, Stepney. Architect to the Council, County Hall (Room No. 3), Westminster Bridge, S.E.1. Dep. £2.

MAY 31.—**Leytonstone.**—CHILDREN'S CHURCH.—Converting portion of a building at their institution into a children's church, for the Bethnal Green Board of Guardians. The Clerk, Guardians' Administrative Offices, Bishop's-rd., E.2. Dep. £2 2s.

JUNE 1.—**Belfast.**—EXTENSIONS.—Goods shed on west side of Dufferin Dock, for Harbour Commissioners. T. S. Gilbert, E.

JUNE 10.—**Cardiff.**—HEATING.—Central heating of Gladstone Council school by low pressure heating installation, for E.C. J. J. Jackson, Director of Education.

JUNE 28.—Portugal.—ARSENAL.—Construction of a naval arsenal on the south bank of the river Tagus, for Portuguese Government. Portuguese Embassy.

JULY 18.—**Sydney.**—DESTRUCTOR.—Refuse destructor at Prymont, Sydney, for T.C. J. Davis, Consulting Engineer, 100, Victoria-st., S.W.1.

—**Acaster Malbis.**—ALTERATIONS.—Also repairs to Council school, for West Riding E.C. W. Hague, Education Office, Selby.

—**Bardsey.**—TRADES.—Plasterers' and tilers' work at house. Atkinson, builder, Woodlesford, nr. Leeds.

—**Darton.**—CLUB.—Ex-Servicemen's club in Station-rd., Darton. W. Wrigley, A.A.R.I.B.A., 2, King-st., Wakefield.

—**Doncaster.**—CONSTRUCTIONAL WORK. In connection with installation of generating machinery at Power Station in Grey Friars'-rd., for C.B. S. R. Windle, B. Electrical E.

—**Forres.**—CINEMA.—R. Carruthers-Ballantyne & Taylor, architects, Inverness.

—**Newcastle-upon-Tyne.**— DEMOLITION. — Pulling down of buildings in Liverpool-st., and Prudhoe-st., insanitary areas, for T.C. City Estate and Property Surveyor.

—**New Shaldon.**—IMPROVEMENTS.—Heating apparatus, at Council school. P. Beaumont, Divisional Clerk, W.R. Education Offices, 8, St. John's North, Wakefield.

—**Saltash.** — REDECORATING. — St. Stephens-by-Saltash Parish Church. W. S. Rashleigh, Stoketon, Saltash.

MATERIALS, etc.

MAY 7.—**Manchester.**—ROAD MATERIALS.—For T.C. City Engineer.

MAY 9.—**Barton-upon-Irwell.**—HIGHWAY MATERIALS, &c.—For R.D.C. E. L. Leeming, S.

MAY 9.—**Plymouth.**—PIPES.—3,000 yards 4-inch cast-iron pipes for C.B. F. Howarth, Water E.

MAY 9.—**Worsborough.**—ROAD MATERIALS.—For U.D.C. T. Shield, S.

MAY 10.—**Droylsden.**—ROAD MATERIALS.—For U.D.C. S.

MAY 10.—**Govan.**—BUILDER'S MATERIALS ETC. For P.C. and District Board of Control. A. Baillie, Inspector and Clerk, 7 and 8, Carlton-pl., Glasgow.

MAY 10.—**Richmond (Surrey).**—LIME, etc.—For Main Sewerage Board. W. Fairley, engineer, West Hall-rd., Kew Gardens.

MAY 11.—**Finedon.**—GRANITE, etc.—For U.D.C. A. E. Lloyd, S.

MAY 11.—**Higham Ferrers.**—ROAD MATERIALS.—For T.C. A. E. Lloyd, B.S.

MAY 11.— **Littlehampton.**— PIPES.—Seventy-two nine foot lengths of 4-in. verticaly cast S & S cast-iron water pipes, one 3-in. tee with 4-in. socket branch, one 4-in. to 3-in. tee with flanged branch, for U.D.C. A. Shelley, C.

MAY 12.—**Belfast.**—BUILDER'S MATERIALS. For C.B. Engineer and Manager, Gas Works.

MAY 12.—**Inverness.**—CEMENT, ETC.—For District Asylum. R. Gilbert, C., 20, Church-st.

MAY 16.—**Ashborne.**—PIPES.—300 tons of cast-iron regular pipes and specials of 7 in. and 3 in. diameter, for U.D.C. Dr. Herbert Lapworth, E., 25, Victoria-st., Westminster. Dep. £2.

MAY 16.—**Farnworth.**—GRANITE.—For U.D.C. F. Ashton, S.

ENGINEERING, IRON AND STEEL.

MAY 9.—**Blackpool.**—BRIDGE.—Reinforced concrete bridge over L.M. and S. Railway at Harrowside, for C.B. F. Wood, B.E. & S. Dep. £2 2s.

MAY 9.—**Bolby.**—REPAIRS.—New concrete valve tower with C.I. cylinder lining; removal of existing C.I. outlet tower; removal of C.I. pipes, etc., from existing tower and outlet culvert; providing and fixing new C.I. pipes, valves, etc., in new tower and existing culvert; extension of overflow weir; raising embankment, due to settlement, with renewal and reinstatement of pitching; provision of new outlet and supply pipes; and other work, for Thirsk District Water Co., Ltd. Edw. Wilson Dixon, East-parade, Leeds.

MAY 9.—**Upper Stour Valley.**—IMPROVEMENTS.—Pumping station at Hay Green, Lye, near Stourbridge, and one at The Freehold, Quarry Bank; and also storm water tanks; detritus tank at Whittington, near Stourbridge, for Main Sewerage Board. Geo. Plant Deeley, E., 13, Church-st., Stourbridge. Dep. £5.

MAY 9.—**Worcester.**—WATERWORKS.—Lining with reinforced concrete of the existing pure water tank at the Worcester Waterworks, for T.C. T. Caink, City E.

MAY 11.—**Surrey.**—RECONSTRUCTION.—Of Lower Bourne bridge, on Shottermill-Farnham main road, for C.C. W. P. Robinson, C.S., Kingston-on-Thames. Dep. £5 5s.

MAY 12.—**Salford.**—STEELWORK.—Steel roof for T.C. Gas Engineer, Gas Offices, Bloom-st.

MAY 12.—**Southampton.** — WIDENING. — Dredging, deepening and widening in western approach to Southampton Water in the Solent, for Harbour Board. J. A. Rupert-Jones, S. Dep. £1.

MAY 12. — **Southend-on-Sea.** — SEWERAGE.—Constructional alterations to the sewage purification works at Prittlewell, and for laying 200 yds. of 33 in. diameter cast-iron pipes, 23 yds. of 12 in. diameter cast-iron pipes, and 45 yds. of 12in. diameter concrete tubes, together with construction of other works, for C.B. Dodd and Watson, E.'s, County Chambers, Corporation-st., Birmingham. Dep. £2.

MAY 14.—**Brownhills.**—WIDENING.—Also rebuilding Anchor Canal-bridge, on Old Chester-rd., for Staffordshire C.C. J. Moncur, C.S. Strafford.

MAY 16.—**Derby.**—WIDENING.—Also reconstruction of bridge over Cuttle Brook, Swarkeston, and approaches thereto, on Derby-Melbourne main road, for Derbyshire C.C. J. W. Horton, C.S., St. Mary's Gate. Dep. £3 3s.

MAY 16.—**Mid-Glamorgan.**—IMPROVEMENTS.—Construction of the following works:—Filter house at Nantymoel, and provision and laying of a line of pipes between Llanblethian and Llantwit Major comprising about 2,000 yards of 7-inch diameter cast-iron pipes, 5,650 yards of 6-inch diameter cast-iron pipes, together with appurtenant works and fittings; also provision and laying of lines of pipes between Bridgend and Laleston, comprising about 1,300 yards of 7-inch diameter cast-iron pipes, 2,800 yards of 6-inch diameter cast-iron pipes, 1,300 yards of 4-inch diameter cast-iron pipes, together with appurtenant works and fittings, for Water Board. Thomas & Morgan & Partners, engineers, Pontypridd. Dep. £5 5s.

MAY 17.—**Rochdale.**—EXTENSIONS.—Reinforced concrete and brickwork to an existing bridge over the Rochdale Canal at Manchester-rd., Castleton, for C.B. S. H. Morgan, B.S. Dep. £2.

MAY 17.—**Goole.**—SEWER.—1,007 lineal yds. of salt-glazed ware and concrete pipe sewer, from 8 in. to 15 in. diameter, together with manholes and other works, pumping station, and 750 lineal yds. of cast-iron rising main, 5 in. diameter, at Swinefleet, for R.D.C. E. J. Silcocks, E., 25, Victoria-st., S.W.1. Dep. £5.

MAY 18.—**Leamington Spa.**—TANKS.—Laying 800 yds., of 24 in. cast-iron rising main; construction of approach road and roads through the works; sedimentation tanks in mass concrete; fourteen circular filter beds; three inverted pyramidal humus tanks; sludge drying beds and slag and clinker ash media; cast-iron distribution pipes and sludge drain stoneware collecting pipes; main effluent carrier and outfall chamber to Tach brook, etc., for the T.C. S. C. Eagles, Consulting Engineer, 71, Temple-row, Birmingham. Dep. £5.

MAY 18.—**Leamington Spa.**—ALTERATIONS.—Alteration of sewers, construction of screening and detritus chambers, reconstruction in engine house and storm water overflow tank at outfall and pumping station, for T.C. S. C. Eagles, engineer, 71, Temple-row, Birmingham. Dep. £5.

MAY 19.—**Hatfield.**—ADDITIONS.—Storm-water tank, three percolating filters, humus tanks, and appurtenant works at Mill Green, for R.D.C. H. T. Sidwell, S. Dep. £2 2s.

MAY 24.—**Mountgarrett.** — RECONSTRUCTION.—Mountgarrett Bridge in reinforced concrete, with a steel opening span, and for contingent works, for Bridge Committee. T. Drew, Secretary to County Council and Bridge Committee, Kilkenny. Dep. £5 5s.

MAY 30.—**Halifax.**—IMPROVEMENTS.—Construction of embankments, &c., for the formation of reservoirs with ancillary works in the Gorpie Valley, for C.B. G. H. Hill and Sons, civil engineers, 40, Kennedy-st., Manchester. Dep. £5 5s.

ROAD, SEWERAGE, AND WATER WORKS.

MAY 9.—**Bromsgrove.**—SEWERAGE WORKS.—Hagley for R.D.C. S. Dep. £2.

MAY 9.—**Coseley.**—SEWERS.—4,940 yds. of stoneware and cast-iron sewers, manholes and other appurtenant works, for U.D.C. Berrington & Son, E.'s, Prudential Chambers, Lichfield-st., Wolverhampton. Dep. £5 5s.

MAY 9. — **Edinburgh.** — SEWERS. — Fireclay pipe sewers at West Saughton, for T.C. B.E.

MAY 9.—**Edmonton.**—MAKING-UP.—Ashwell-grove, Cowper-rd., and Queen Anne's-grove, for U.D.C. C. Brown, S. and E. Dep. £2 2s.

MAY 9.—**Glasgow.**—SEWER.—12 in. and 18 in. pipe sewer in Auchenairn-rd., from Springburn-rd., Westwards, for the T.C. J. Lindsay, T.C.

MAY 9.—**London.**—MAIN.—Laying and jointing 2,909 lin. yds. of 36 in. diameter cast-iron water main and connections, together with contingent works, from Albert-rd., St. Pancras, to Brecknock-rd., in Islington, for M.W.B. Chief Engineer, 173, Rosebery-av., E.C.1. Dep. £10.

MAY 9.—**Manchester.**—PAVING.—Sewering, draining, paving (concrete), flagging (artificial flags), etc.: Johnson-st., Openshaw, from Dalamore-st., a point 29 yards; Cheeryble-st., Openshaw, from Ashton Old-rd., to Toxteth-st.; Sewering, draining, paving (rock asphalt), flagging (artificial flags), etc.: Hawarden-av., (Clarendon-rd.), Whalley-range; draining, paving (rock asphalt), flagging (artificial flags), etc.: Greenwalk (Wood-rd.), Whalley-range; Ellesmere-rd., South (Wilbraham-rd.), Choriton-c.-Hardy; draining, paving (concrete), etc.: passage behind 2-46, Claude-rd., 1-13, Beech-rd., and 1-41, Reynard-rd., Choriton-cum-Hardy; passage behind 19-23, Cambriad-st., and adjoining 2, Upper Cyrus-st., and 1, Adswood-st., Ancoats; draining and flagging (artificial flags), passage adjoining 27, Adswood-st., Ancoats, for T.C. P. M. Heath, T.C.

MAY 9.—**Whitstable.**—MAKING-UP.—Gragstone-rd., (part of), Tankerton; Pier-av. (part of); Manor-rd., (part of); Ellis-rd., for U.D.C. J. Dunn, S. and Water E. Dep. £2.

MAY 10—**Altrincham.**—MAKING UP.—S. Mark's-av., for U.D.C. S.

MAY 10—**Kerry.**—IMPROVEMENTS.—On the Listowe-Ballybunion-rd., for C.C.

MAY 10.—**Kildare.**—REPAIRS.—Naas-Monasterevan-rd., surfacing approximately 38,000 square yards in tar bitumen macadam; Naas-Carlaw-rd., strengthening and surfacing in tar bitumen grouting, approximately 70,000 square yards; Naas-Carlow-rd., tar spraying 96,800 square yards approximately; Kilcullen-Athy-rd., tar spraying 92,400 square yards in different lengths, for C.C. C.S.

MAY 11.—**Birmingham.**—SEWER.—1,170 yds., of brick and concrete sewers and culverts, 490 yds., of concrete tube sewers, and 1,900 yds., of stoneware pipe sewers, at Acocks-green, for T.C. H. H. Humphries, City E. and S. Dep. £2.

MAY 11.—**Deal.**—FOOTPATHS.—(1) making of footpaths and roadways, approximating 1,550 sup. yards; (2) building of boundary and retaining walls, approximating 4 rods and 26 cubic yards respectively, for Burial Board. Secretary.

MAY 11.—**London.**—PIPES.—Steel tanks, pipes, &c., in connection with works at Kempton for M.W.B. Chief Engineer.

MAY 12.—**London.**—MAKING-UP.—Builders' roads on Bloomfield Housing estate, West Norwood, for Lambeth B.C.

MAY 14.—**Doncaster.**—ROADS.—On Warmsworth-rd. (south), site, for C.B. R. E. Ford, Housing Surveyor, 3, Priory-place.

MAY 14.—**Glasgow.**—SEWERS.—Roads and sewers at Balmore, Possilpark, for T.C. J. Lindsay, T.C.

MAY 14.—**Halifax.**—MAKING-UP.—Crescent-rd. (part of), for U.D.C. T. Blagburn, S. Dep. £1 1s.

MAY 17.—**Doncaster.**—SEWERAGE.—400 lin. yds. of 3 ft. by 2 ft. egg-shaped sewers and 932 lin. yds. of circular sewers, varying in diameter from 27 in., to 12 in., for C.B. F. Oscar Kirby, B.E., 2, Priory-pl. Dep. £5 5s.

MAY 18.—**Turton.**—WIDENING. Chapeltown-rd., near Bromley Cross Station, for a length of about 400, lineal yards, for U.D.C. V. W. Laithwaite, S., Bromley Cross, near Bolton.

MAY 19.—**Thornton.**—MAKING UP.—West-drive from Holmfield-av., to Bourne-rd., for U.D.C. H. Fenton, S.

MAY 20.—**Belfast.**—SEWER.—430 lineal yards of reinforced concrete outlet sewer divided by diaphragm walls into three culverts, with junction chamber and branches, all to be constructed in Cofferdam through tidal lands in Belfast Lough, for C.B. W. H. Stephens and Sons, Chartered Surveyors, 13, Donegall-sq., North. Dep. £5 5s.

MAY 20.—**Harrow-on-the-Hill.**—MAKING UP.—Corbin's-la., Beechwood-av., Beechwood-gdns., for U.D.C. J. Percy Bennetts, E. and S. Dep. £1.

MAY 21.—**St. Mellons.**—WATER SUPPLY.—Laying 350 yds., of 9in., cast-iron and steel water mains between Llanedarne bridge and Cross-Llechan, together with appurtenant works and fittings, for R.D.C. Thomas & Morgan & Partners, Civil Engineers, Pontypridd. Dep. £3 3s.

MAY 23.—**Ashborne.**—PIPES.—Laying of about 3½ miles of 7 in. and 3 in. cast-iron pipes and specials, together with valves, hydrants, meters, &c., at Rodsley, for U.D.C. Dr. Herbert Lapworth, E., 25, Victoria-st., Westminster. Dep. £3.

MAY 23.—**London.**—EXTENSION.—1,137 lin. ft. of 5 ft. 3 in. by 3 ft. 6 in. brick and brick and concrete sewer in Balham High-rd., with two side entrances and ventilators; the construction of a weir chamber and the supply and fixing of a timber flap in an existing chamber, in Wandsworth, for L.C.C. Chief Engineer, Old County Hall, Spring-gdns., S.W.1. Dep. £5.

MAY 23.—**London.**—SEWER.—Construction in tunnel, partly in compressed air, of about 3,140 lin. ft. of 5 ft. internal diameter cast-iron sewer from Springbank-rd. to Thornford-rd.; construction of a tumbling bay, six side entrances and ventilators, &c., in Lewisham for L.C.C. Chief Engineer, Old County Hall Spring-gdns., S.W.1. Dep. £10.

MAY 25.—**Halstead.**—DRAINAGE.—Construction of about one mile of stoneware and cast-iron sewers of 9 inch and 7 inch diameter, together with manholes and other appurtenances, and for the construction of a pumping station and about one-third of a mile of 7 inch diameter cast-iron rising main, 2 settlement tanks, effluent carriers, effluent pipe, fencing, and other works at Earls Colne, for R.D.C. John Taylor & Sons, E.'s, Caxton House, S.W. 1. Dep. £5.

MAY 28.—**Huyton-with-Roby.**—CONVERSIONS. — Of 36 midden privies and 28 pail closets to water-closets, for U.D.C. R. J. Pritchard, Sanitary Inspector. Dep. £2.

MAY 30.—**Heywood.**—SEWERING.—18 in. diameter concrete pipe sewer in Middleton-rd., from the existing sewer in Charles-st., Hopwood for a distance of 400 lineal yards in tunnelling, together with manholes and contingent works for T.C. B.S.

—**Howth.**—EXTENSION.—180 ft. of 3 in. water mains at Claremount, also broken stone, pebble and chippings, for U.D.C. F. Higginbotham, S.

Competitions.

(See Competition News 716.)

Auction Sales, Tenders, etc.

MAY 10, 11 AND 12.—**Uttoxeter.**—Messrs. Perry & Phillips, Ltd., will sell, on the premises, Calwich Abbey, Uttoxeter, fixtures and fittings, previous to demolition, of the Abbey, the historical stone-built "Handel's" Temple; after this the fabric of the Abbey will be sold for demolition. Auctioneers, High-st., Bridgnorth.

★MAY 11.—**Belvedere, Kent.**—F. H. Clark will sell without reserve at the Government Depot, Crabtree Manorway, huts, timber and building materials. Auctioneers, 117, Victoria-st., S.W.1.

★MAY 24, 25 AND 26.—**Durham.**—Perry & Phillips Ltd., will sell on the premises, Streatham Castle, near Darlington, Co. Durham, the whole of the interior and exterior fixtures and fittings previous to demolition of the fifteenth century castle; also the fabric of the castle will afterwards be sold for demolition (except a portion of the old rubble interior and exterior walls as clearly marked on Plan). Auctioneers, High-st., Bridgnorth.

MAY 31.—**London.**—Hampton & Sons will sell, by order of the Trustees of Admiral F. Harrison-Smith, deceased, Edgware, freehold residential and building properties, "Moor House" and "Lymes Farm," Little Stanmore, near Edgware, the properties thereon, in all about 60 acres. Auctioneers, 20, St. James's-sq., S.W.1.

★MAY 31.—**London.**—Thurgood, Martin & Eve will sell (unless previously sold privately) at the London Auction Mart, 155, Queen Victoria-st., E.C.4. Freehold building land, corner block at Streatham, 3 roods, 26 perches. Auctioneers, 27, Chancery-lane, W.C.2.

JUNE 21.—**London.**—Weatherall & Green will sell, at the London Auction Mart, 155, Queen Victoria-st., E.C.4, Adelphi Estate, Strand, within short distance of Charing Cross, freehold, nearly two acres in extent, comprising the historic Adelphi-ter. Auctioneers, 22, Chancery-la., W.C.2.

Public Appointments.

MAY 14. — **Cardiff.** — Instructor required by Education Committee. for the Technical College. J. J. Jackson, Director of Education, City Hall, Cardiff.

MAY 14.—**Exeter.**—CLERK OF WORKS required by the City of Exeter. H. Lloyd Parry, Town Clerk.

★—**Nigeria.**—ARCHITECTS (2).—Required by the Government of Nigeria for two tours of not less than 12 nor more than 18 months' service. Apply at once, Crown Agents for the Colonies, 4, Millbank, Westminster, S.W.1. Quoting M/15334.

PATENTS

APPLICATIONS PUBLISHED.*

259,360.—R. J. Rodd: Show and display stands.
242,267.—Soc. Bournisien Beau et Cie: Safes or strong-rooms.
244,720.—Soc. Bournisien Beau et Cie: Safes or strong-rooms.
254,677.—Superheater Co.: Furnace wall constructions.
248,732.—Ardeltwerke Ges.: Cranes.
259,456.—J. Kenny: Moulding apparatus.
259,472.—A. R. Barnes and A. Barnes: Panels and like hinged members.
259,486.—H. Hope & Sons, Ltd., and H. D. Hope: Metal-framed windows.
259,503.—G. E. Heyl: Making cement.
259,506.—K. M. Johansson: Lathing.
259,510.—L. Krause: Device for reducing the outlet velocity of a jet of concrete or mortar.
259,626.—A. M. Kobiolke: Apparatus for the destruction of insect pests.
259,628.—L. W. Blanchard: Securing metal sheets.
259,635.—G. O. Case: Artificial stone.
259,636.—G. O. Case: Mineralising fibrous materials.
259,656.—J. C. Berry: Brick-making machine.
259,705.—J. Bailie: Walls.
259,706.—J. H. M. Marshall: Building-slabs.
259,504.—G. J. Fink: Cementitious compositions.
259,757.—F. H. Riddle: Ceramic bodies.
259,760.—M. Glauser: Surveying instruments.
259,761.—J. Harden and H. T. Tillquist: Method of applying non-corrosive coatings.
259,805.—S. E. Sieurin.—Fire-proof bricks.
259,826.—G. E. Heyl: Wall coverings.
259,832.—K. T. Patterson and L. H. Hodgins: Bricks.
259,645.—E. V. Backlund: Wall-building unit.
260,031.—D. De Ros and F. Barton: Artificial stones.
260,033.—H. H. Bennett: Gulleys.
260,128.—E. Mornement J. N. C. Ray and Mornement & Ray, Ltd.: Excavators.
260,131.—L. F. Loucks and H. Gillett: Building construction.
260,171.—H. O. Keay: Abrasive cement.
261,072.—J. W. Waller and C. Walker: Concrete blocks.
261,073.—C. Walker and J. W. Waller: Lining of shafts.
261,114.—C. Chappat: Block paving.
261,162.—J. H. Lupton: Expanding metal stud.
261,168.—G. M. V. Reed: Joints.
261,174.—S. Wilkinson and J. Wilkinson: Manufacture of saggars, blocks or slabs.
261,179.—E. Ainley and H. Ainley: Cutting stone.
261,180.—E. James: Locking devices.
261,211.—E. O. Stubbings: Crushing machines.
247,952.—W. Klinke: Ferro-concrete floors.
261,260.—F. Morton: Paving-blocks.
251,967.—E. Van Bavegem: Concrete building construction.
252,021.—J. R. Joya: Pavements.
261,283.—A. W. Clarke: Flooring.
261,285.—J. Boyd: Metallic building construction.
260,074.—T. N. Backhouse and H. Oliver: Manufacture of bricks.
260,313.—J. Melandri and Spun Concrete Construction Co.: Building blocks.
260,340.—F. A. Wilson: Roofing tiles.
250,894.—Atlas Powder Co.: Varnishes.
260,372.—R. M. Mitchell and D. A. Stewart: Slab walls.
240,161.—E. E. Lanhoffer: Burning cement.
260,420.—F. H. Allman-Ward: Sliding doors.
260,427.—J. Melandri and Spun Concrete Construction Co.: Fibre and cement composition.

* All these applications are now in the staging which opposition to the grant of patents upon them may be made.

NEW COMPANIES

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

CASWELL, CRANES & ERECTION, LTD. (220,106). Registered March 5. 53, Victoria-street, S.W.1. Crane manufacturers, builders, contractors, bridge builders, constructional engineers and erectors, &c. Nominal capital, £10,000.

F. & R. LEWIS (1927), LTD. (220,036). Registered March 3. Builders and contractors, &c. Nominal capital, £5,000.

BUILDERS' SUPPLIES (PAIGNTON), LTD. (220,030). Registered March 3. The Stores, Churchward-road, Paignton, Devon. Builders' merchant. Nominal capital, £6,000.

D. A. C. STUDIO, LTD. (219,961). Registered February 28. 95, Jermyn-street, S.W.1. Proprietors of decorative art studios, dealers in artists' and painters' colours and materials, &c. Nominal capital, £100.

ELWORTHY & Co., LTD. (220,015). Registered March 2. Builders, builders' contractors and merchants, and road material contractors, &c. Nominal capital, £2,000.

SANDERSTEAD DEVELOPMENT CO., LTD. (220,023). Registered March 2. To acquire any lands or buildings in England or elsewhere; to lay out and prepare the same for building purposes, &c. Nominal capital, £300.

PONDAC, LTD. (219,944). Registered February 26. Builders and decorators, general merchants, &c. Nominal capital, £1,500.

VICTORIA DEVELOPMENT CO., LTD. (220,508). Registered March 21. To acquire lands, buildings, shops and any real or personal property; to erect and repair buildings, &c. Nominal capital, £1,000.

CHARLES FREDERICK, LTD. (220,420). Registered March 18. 24, Park-place, Liverpool. Builders. Nominal capital, £6,000.

RADCLIFFE BRICK CO., LTD. (220,525). Registered March 21. Brick makers. Nominal capital, £2,000.

D. A. ABLETT & SONS, LTD. (220,535). Registered March 22. Sovereign-road Sawmills, Wigan. Builders and contractors. Nominal capital, £5,000.

J. J. UDALL'S BUILDING CO., LTD. (220,435). Registered March 18. 36, Carlton-place, Southampton. Builders and contractors, &c. Nominal capital, £3,000.

BOLESWORTH TRUST CO. (220,419). Registered March 18. To acquire, develop and turn to account any estates, lands and buildings, tenements and other property; to acquire certain estates in Cheshire and Manchester; and to carry on the business of builders and farmers, &c. Nominal capital, £300,000.

OWENS & BAKER, LTD. (220,288). Registered March 12. Erw Fair, Abersoch, Carnarvonshire. Builders and contractors. Nominal capital, £1,500.

GAVIN BROTHERS, LTD. (220,321). Registered March 14. Builders, contractors and decorators. Nominal capital, £1,000.

WILLIAM THOMAS BREEN & Co., LTD. (220,275). Registered March 12. Builders and contractors, &c. Nominal capital, £1,000.

C. W. SCOTT, LTD. (220,297). Registered March 14. Builder and contractor. Nominal capital, £10,000.

T. SHEPLEY & Co., LTD. (220,312). Registered March 14. Painter and decorator. Nominal capital, £1,200.

"REDALON," LTD. (220,242). Registered March 11. Regent House, Regent-street, W.1. Building material manufacturers, engineers and financiers, &c. Nominal capital, £1,000.

J. CHEERS & Co., LTD. (220,236). Registered March 11. Builders, &c. Nominal capital, £250.

R. CLIFTON (ESTATES), LTD. (220,209). Registered March 10. Builders and contractors, auctioneers, &c. Nominal capital, £1,000.

WHITE BLANCHARD & Co., LTD. (220,218). Registered March 10. 42, Blackfriars-road, S.E.1. Heating, ventilating and general engineers, &c. Nominal capital, £1,000.

TRADE NEWS

The Carlton Theatre.

In connection with the description of this building given in our last issue, Mr. Frank T. Verity, F.R.I.B.A., architect, we are informed that Messrs. Allensor, Ltd., were the sub-contractors for the joinery, including that for the stage.

Second-hand Scientific Apparatus.

The April catalogue of Messrs. C. Baker, of 244, High Holborn, W.C., contains details of a wide selection of good and reliable second-hand surveying and other instruments. Messrs. Baker have several first-class theodolites on hand at present, together with sets of drawing instruments, to be sold at advantageous prices. They have also an extensive collection of levels, mining dials, circumferentors, etc. The catalogue will be sent gladly upon request.

Modern Building Construction.

Under this heading, an interesting booklet has been produced by the Triangular Construction Co., Ltd., of East Molesey, Surrey. This firm's system of building contruction deals with the use of concrete, and, we are given to understand, eliminates the many disadvantages of the wet systems of building with shuttering. It permits of making, on the actual building site, building units of standard sizes and shapes which, it is claimed, produce a far more adaptable system of building than is possible with bricks, masonry or wet concrete.

Terra-cotta Faience.

Messrs. J. Lyons and Co., Ltd., are proceeding immediately with the erection of another large restaurant in London. This is to be built on the site of the old Oxford Theatre of Varieties, and the contract for the faience for the main facades, amounting to more than £10,000, has been placed with the Leeds Fireclay Co., Ltd. The material to be used is similar to that recently supplied by the same firm for the Park Lane Hotel, Piccadilly.

An Interesting Jubilee.

On May 1 Mr. Cornelius Koning, of Amsterdam, celebrated his jubilee as agent in Holland for the North British Rubber Co., Ltd. Although Mr. Koning has handled the whole range of "North British" products, he has done pioneer work in the introduction of rubber flooring into Holland. Within six months of the invention and manufacture of "Paraflor" rubber carpeting by the North British Rubber Co., he had sold quantities of this material to the value of £10,000. The directors of the North British Rubber Co., at their board meeting on Wednesday, April 27, passed a special minute of congratulation and appreciation, and in forwarding copy of this minute to Mr. Koning, accompanied it with a gold cigar case, suitably inscribed.

Gaze's Co-Partners' Dinner.

Messrs. W. H. Gaze and Sons, Ltd., gave a dinner to their employee shareholders on April 23, at the "Griffin" Hotel, at Kingston-on-Thames. Mr. W. H. Gaze, by whom the firm was founded in 1885, in proposing the toast of "Our Co-Partners," remarked that it was very gratifying to see so many co-partners present. In explaining how the co-partnership came about, he said that in the year 1909, the directors seriously considered the advisability of forming their then business into a limited liability company, with a co-partnership scheme of employees' shares, so that their staff should share with them such profits as they hoped to make. In the following year, 1910, they gave birth to this company, and had gone on year by year until they had built up the business they had to-day, which was a very successful undertaking. In the first year, 1910, they numbered about 5,637 co-partnership shares: to-day they were 191,000. During dinner the company was entertained with musical items, and later with a most enjoyable concert party.

PROPOSED NEW BUILDINGS & OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T for Ministry of Transport; C.B. for County Borough; B.E. for Board of Education; M.A.B. for Metropolitan Asylums Board; and M.W.B. for Metropolitan Water Board.

AXMINSTER.—U.D.C. received M.H. sanction for £5,121 in respect of houses in Willhayne-la.

BATH.—City E. is to carry out by direct labour outside painting to further number of houses at Englishcombe-pk., at £400.

BEDFORD.—T.C. passed plans for 14 garages, Denmark-st., by E. H. C. Inskip for F. Ruff.—R.D.C. are to build 6 non and 6 parlour houses, at Cotton End.

BEESTON.—U.D.C. are to make application to M.H. for £18,000 for 42 more houses.—Council are considering erection of a school on Lenton Abbey estate.

BIRMINGHAM.—E.C. recommend, subject to approval of B.E. and M.H., third block of new Council School at Billesley at £12,055.

BOLTON.—Board of Education approved site of proposed Castle Hill Council School, to cost £2,058.

BRAMHOPE.—Parish Church is in need of church hall, and the Vicar has been in communication with the Ecclesiastical Commissioners, the Church Building Society, the diocesan surveyor, and the architect regarding the matter. A plot of land has been promised for a building.

BROCKLEY.—Royal Arsenal Co-operative Society, Ltd., are to erect branch at Brockley. Society's works department will carry out the work to the plans of Mr. T. W. Ackroyd, A.R.I.B.A.

BURNHAM (ESSEX).—International Housing Trust are proposing to erect 12 non-parlour houses.

CARDIGANSHIRE.—M.H. has given consent to C.C. to borrow £21,196 in connection with reconstruction of various main roads and strengthening of Ponterwyd Bridge.

CARLISLE.—The Prison Committee of C.C. approved a plan received from T.C. showing the proposed alterations to entrances to courts in connection with the street improvement scheme which had been agreed between the City Engineer and County Architect.

CHORLEY.—M.H. approved R.D.C. scheme for eight houses and four houses at Coppull and Whittle-le-Woods respectively. Tenders are to be invited.

COSHAM.—Roman Catholic community are proposing to erect a new church. Plans by W. C. Mangan, M.I.Struct.E., of Preston, Lancs.

COULSDON AND PURLEY.—U.D.C. received M.H. sanction to £2,956 for land in Westleigh-av. for housing purposes.—S. is to prepare plans for bus shelter for passengers in Brighton-rd., Purley.—Plans passed: F. A. Freeman, 5 pairs of semi-detached houses, Hartley-down, Purley.

DAWLISH WARREN.—On a site given by late Earl of Devon a church estimated to cost £600 is to be erected.

DONCASTER.—Barnsley Brewery Co. have received permission for hotel at Barnby Dun-rd. and Thorne-rd. Architects, Wilburn & Atkinson, Exchange Buildings, Doncaster.

EXETER.—M.H. has sanctioned the borrowing of an additional £5,750 by the C.C. for public library in Rougemont-grounds.

FARNBOROUGH.—U.D.C. passed plans: 18 houses, Victoria-rd., T. H. Jones; 6 houses, Fellows-rd., Mr. Fleetwood; covered market, Queen's-rd., T. H. Jones.

GARSTANG.—An application has been granted to carry out structural alterations to the New Holly Inn for Luke Parkinson of Lancaster. Plans by R. W. Jackson, L.R.I.B.A., 43, Church-st., Lancaster.

GLOUCESTER.—Land is to be sold in King Edward's-av. for Roman Catholic Church.

GRIMSBY.—C.B. recommend £3,572 to cover additional expenditure in connection with re-construction of Corporation-rd. bridge.

GUILDFORD.—E.C. are considering erection of another elementary school in the Guildford Park area.

HATFIELD.—R.D.C. agreed to erect eight non-parlour houses at Welham Green and twelve non-parlour at Little Heath.

HENDON.—M.A.B. recommend erection, at £5,380, of a recreation hall at Colindale Hospital in accordance with plan submitted, subject to M.H. approval.—U.D.C. passed plans: 6 houses, Wykeham-rd., Hendon, W. T. Streather; 10 houses, Sefton-av., Mill Hill, A. Graham; 25 shops, Watling-av., Burnt Oak, Newcombe, Wright & Richards; 13 shops, Church-rd., Hendon, H. V. Rowlands.

HESTON AND ISLEWORTH.—U.D.C. passed plans: R. T. Warren, 88 houses, Road No. 2, Heston Hall estate; J. Gilkes, 4 houses, Heron-rd.; A. C. Hodges, 4 houses, Burlington-rd.

HORNSEA.—M.H. held inquiry into U.D.C.'s application to borrow £4,800 for purchase of Elim Lodge and for alterations thereto for public offices, including magisterial court and Holderness area assessement committee meetings.

ILFORD.—A site has practically been purchased in Hamilton-av., Barkingside, for new St. Lawrence's Church, which will cost about £1,800.

IPSWICH.—Plans are being prepared for a furnishing department for the Co-operative Society at 56 & 58, Carr-st., and also for extensions at their Vernon-st., branch.

KEIGHLEY.—Governors of Keighley Drake and Tonson's School have expressed approval of the West Riding C.C.'s proposal to acquire land for secondary school for girls.

LANARKSHIRE.—District Committee of the Middle Ward of Lanarkshire, are to erect a footbridge over river at Caldervale at £200.

LEEDS.—Premises in Park-place recently occupied by Weisbach, Ltd., and gutted by fire, are to be rebuilt without delay.

LEYBURN.—Magistrates approved plans for cinema.

LINTHWAITE.—U.D.C. is to purchase a site of several acres at Myrtle-grove to carry out a housing scheme.

LIVERPOOL.—Rev. Canon Clarkson has acquired a site at Broad Green for a new church. Plans by W. Ellis, architect, 9, Hardshaw-st., St. Helen's.

LONDON (BERMONDSEY).—B.C. are to apply to L.C.C. for £19,250 for 35 cottages on Salisbury-st. site.—Housing Committee submit estimate of £6,320, subject to sanction of L.C.C. to loan, in connection with purchase of freehold land, Corbetts-la.; erection of 17 temporary houses on Brunel-rd., Corbetts-la., and Pottery-st., sites; conversion of the warehouse and renovation of house, Pottery-st., into three flats; and provision of paved courtyard and connection to sewer, Pottery-st.—Plans passed: G. Smart, 331, Mare-st., Hackney, corner of Tower Bridge-rd., and Bermondsey-st., cinema.

LONDON (FULHAM).—M.A.B. recommend that, subject to sanction of M.H., proposal to extend covered yard area and to carry out certain other alterations at Western Ambulance Station, at £5,135, be approved.

LONDON (WANDSWORTH).—M.H. approved £439 in respect of improvements and re-decoration at Wandsworth Casual Ward, for M.A.B.

LONDON (WOOLWICH).—Two churches, and a Salvation Army hall are to be built on estate at Eltham.—Church is to be built in Appleton-rd.—B.C. recommend application to M.H. for sanction to erection by direct labour of 173 houses.—Plans passed: W. Childs (on behalf of the Roan School Committee), sports pavilion, Kidbrook Park-rd.; A. Holder (on behalf of Woolwich B.G.) annexe to nurses' homes at the Woolwich Infirmary, Plumstead, High-st.

LOSSIEMOUTH.—A public inquiry has been held by the Scottish Board of Health into the application of T.C. for confirmation of a Compulsory Order taken out by them for the acquisition of land on north side of Dunbar-st. for erection of four blocks of four-roomed workmen's houses.

MAIDENHEAD.—In the annual report, the Maidenhead Hospital propose enlarging the hospital.

MITCHAM.—U.D.C. passed plans: Isaac Wilson, Commonside, 54 houses, Cranmer-rd.; Peacock, 10 houses Streatham-rd.; H. Hann, 8 houses, The Park.

MERIDEN.—R.D.C. passed plans for 14 houses, Castle Bromwich. A. Francis.

MILLFIELD.—M.H. approved acceptance of tender of £835 for installation of electric light at Millfield, for M.A.B.

MONKSEATON.—Northumberland E.C. is to carry out extensions at the new Council School.

NEWCASTLE.—City Council received sanction of M.H. for five loans totalling over £95,000. Principal are: £42,653 for housing, £42,355 for the purchase of land for a new Central Technical College, and £10,000 for equipping Whinney House, Shotley Bridge, as an institution for mental defectives.—The Co-op. Society has purchased a 41-acre site at Cowgate to erect about 400 houses and a large modern dairy.—E.C. have received sanction to enlarge the school at Walkergate, to provide accommodation for about 300 children. Architects are Marshall & Tweedy, 54, Grey-street. The committee are also to negotiate for a site for a school at Two-Ball Louven, and also propose to acquire eight acres of land at Walker for another new school.

NEWTON ABBOTT.—M.H. approved erection of 54 houses on Broadlands housing site for U.D.C. Contractors are Universal Housing Co., Ltd.

NORTHAMPTON.—C.B. recommend scheme as amended be adopted and application be made to M.H. for sanction to £8,725, for erection of laundry at Harborough-rd. hospital.—Council resolved that brick houses of similar type to those on Gipsy-la., site be erected on Weedon-rd., site and tenders be invited.—Plans passed: 14 houses, Balfour-rd., A. E. Thompson.

NORTHALLERTON.—Council of All Saints' Church propose to erect a two-story parish hall for 300 people, at £3,500.

NUNEATON.—The Mayor is appealing for £5,000 for extensions to General Hospital.

OXSHOTT.—Epsom R.D.C. are negotiating in respect of land at Little Heath for further houses.

ROTHWELL (YORKS).—U.D.C. are seeking borrowing powers for £89,000 in connection with New Lemonroyd Works.

SALCOMBE.—Foundation stone has been laid for new £10,000 church.

SAMFORD.—M.H. has given sanction to acceptance of Wheeler & Sons' contract for houses at Brantham, and Scrutton & Sons' contract for houses at East Bergholt.

SHEFFIELD.—E.C. propose erection by direct labour, of Pipworth-rd., School at £48,000.—Funds are being raised for new church for St. Alban's, Darnall.

SKIPTON.—U.D.C. decided to build houses on land adjoining Carleton-rd., housing site.

SMETHWICK.—Application is to be made by C.B. to M.H., for £26,634, for 64 houses in Alexandra-rd.—Sanction of M.H. to 108 houses on Warley-rd. site, and to borrowing necessary loan has been received.—Plans passed:—Church for Smethwick Spiritualists, Church-lane; 9 houses, White-rd., W. Lees & Sons; 10 houses, Hugh-rd., Strong Bros.

ST. IVES.—M.H. approved T.C. scheme prepared by B.S., for 34 houses on Bullan's-la., site.

STAINES.—R.D.C. have passed plans for 75 bungalows, 12 houses and 2 shops to be erected at Dawley-rd., Harlington, for Field & Sons.

SWILLINGTON.—A site has been acquired adjoining Swillington Parochial Hall upon which the W. Riding C.C. propose to erect a new school in accordance with plans prepared by their own architect's department.

TORQUAY.—E.C. has adopted a scheme for the remodelling of Homelands School as a central school. Mr. Widows, architect, is preparing the plans.

TYNEMOUTH.—M.H. sanctioned borrowing of £48,000 for conversion of pail-closets into water-closets.—Finance and Estate Committee recommend application to M.H. for sanction to borrow £10,650 for alterations to Tynemouth Priory Council School Buildings.——T.C. passed plans: 7 houses, Brightman-rd., and adjoining new road, South Preston Villa estate, by W. Stockdale, for Ball Bros.; 73 houses, Ogle-terrace, Balkwell; 6 houses, Cartington-rd., Balkwell; proposed slum-area tenement buildings and stores, Bell-st.; 15 blocks of maisonettes, No. 1 Avenue, Balkwell, by C. P. Sherwin, for Corporation; 4 semi-detached houses, Mast-la, by J. R. Wallace, for St. George's Estate Co., Ltd.; 7 shops and houses, Hawkey's-la, by A. K. Tasker, for J. Frazer.

VENTNOR.—Council are spending over £3,000 on renovation and improvement of Town Hall.

WALTON-ON-THAMES.—British Legion have purchased a site for erection of homes for aged ex-Servicemen.

WEST STANLEY.—The Durham County E.C. proposes extensions at the Alderman Wood Secondary, School for the establishment of a mining centre.

WOKING.—Plans passed: A. E. Jones, 6 houses, Rosebery-cres.; E. Ricks, 4 houses, Bonsey Farm estate Westfield-rd.; Sir H. Lidiard, 12 houses, Walton-rd.; Woking Electric Supply Co., sub-station at Vale Farm-rd.

FIRES

GLASGOW.—Warehouse of Messrs. Lyon (Ltd.), has been completely gutted by fire. Damage to extent of £50,000 has been caused.

LIVERPOOL.—Damage estmated at £15,000 was caused by fire in Forth-street.

*See also our List of Contracts, Competitions, etc.

ESTIMATING ON RIGHT LINES

Everyone whose business it is to quote for building work should master the principles upon which estimating is based. These principles are clearly explained and illustrated in

'HOW TO ESTIMATE'

by J. T. REA,

a unique and invaluable work which is not excelled in thoroughness or in scope by any similar book known.

Fourth edition (now ready). 540 pages. Price 15s. net (by post 15s. 9d.). Containing thousands of prices and hundreds of examples of analysis, showing how a builder can make up rates for himself. In view of the difficulty of fixing standard prices under present conditions, the author has included an important series of Adaptation Tables and Percentages (corrected to February, 1927), *which show how rates may be adjusted to meet variations at any time.*

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New Road over Sussex Downs.

A scheme has been formulated by the Brighton and Hove Hotels' and Boarding Houses' Association to obviate the noise of heavy vehicles along the sea front at night. They suggest a road over the Downs to the north of the town and across country east and west by way of Patcham, where they propose the erection of a viaduct over the railway on the main London-Brighton road, so as not to interfere with ordinary road traffic. The new west-to-east road would run from Portslade to Newhaven, and traffic from Brighton, Hove, and the western districts would travel along the Old Shoreham road and reach the London road by Upper Drive.

The Children's Sanatorium: Abergele.

Official intimation has reached Abergele that the Public Health Committee of the Manchester Corporation has let the contract for the erection of a new sanatorium for children on their estate at Plas Uchaf. The scheme, it is stated, will cost £225,000. The site for the new building is admirably located on a plateau which is sheltered from east winds.

PRICES CURRENT OF MATERIALS.

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry. Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 5 6
Second Hard Stocks	3 19 6

Per 1,000. Delivered at London Goods Stations.

Fletton, at	£ s. d.		£ s. d.
King's Cross	2 14 3	Best Blue Pressed Staffs	9 5 0
Do. grooved for Plaster	2 16 3	Do. Bullnose	9 15 0
Do. Bullnose	3 8 3	Blue Wire Cuts	7 5 0

Best Stourbridge Fire Brick :—
2½ in. ..... 8 11 0 3 in. 10 3 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	21 10 0	D'ble Str'tch'rs	30 0 0
		D'ble Headers	27 0 0
Headers	21 0 0	One Side and two ends	31 0 0
Quoins, Bullnose and 4½ in.		One Side and one End	32 0 0
		Splays and Squints	28 10 0
Flats	28 0 0		

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.
Delivered London.

	s. d.		s. d.
2in. per yd. super	1 11	3in. per yd. super	2 9
2½in. ,, ,,	2 4	4in. ,, ,,	3 6

	s. d.	
Thames Ballast	10 6	per yd
Pit Sand	13 9	,, ,,
Thames Sand	14 6	,, ,,
Best Washed Sand	14 6	,, ,,
¼in. Shingle for Ferro-Concrete	12 9	,, ,,
½in.	14 0	,, ,,
¾in. Broken Brick	11 6	,, ,,
Pan Breeze	7 6	,, ,,

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement. British Standard Specification. Test 51s. alongside at Vauxhall in 80-ton lots.	£2 18 0 to £3 3 6
Ferrocrete per ton extra on above	0 10 0
Super Cement (Waterproof)	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
,, ,, Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
,, ,, White	3 12 6
,, Fine	5 12 0
Sirapite, Coarse	3 9 0
,, Finish	3 17 0
Grey Stone Lime	3 0 9
Chalk Lime	3 0 9
Best Ground Blue Lias Lime	2 13 6
Hair ..... per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months carr. pd.

Stourbridge Fireclay in s'cks 37s. 0d. per ton at rly. dp.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 10
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, I. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4½
Do. do. delivered on road wagons at above stations, per ft. cube	4 5½
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
HOPTON-WOOD STONE—	
Delivered at any Goods Station, London.	s. d.
Random blocks from 10ft. and over P. ft. cb.	17 0
Sawn two sides ,,	27 0
Sawn three or four sides ,,	32 0
YORK STONE, BLUE—*Robin Hood Quality.*	
Delivered at any Goods Station, London.	
6in. sawn two sides landings to sizes (under 30ft. super) ..... Per ft. super	5 6
6in. rubbed two sides, ditto ,,	6 0
3in. sawn two sides slabs (random sizes) ,,	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) ,,	1 6½
1½ in. to 2 in. ditto, ditto ,,	1 4
HARD YORK—	
Delivered at any Goods Station, London.	
Scappled random blocks ..... Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) ..... Per ft. super	5 1½
6in. rubbed two sides, ditto ,,	6 1½
4 in. sawn two sides slabs (random sizes) ,,	2 10
3in. ditto ditto ,,	2 1½
2 in. self-faced random flags ... Per yd. super	9 0

CAST STONE.

Delivered in London Area in full van loads, per ft. cube :—Plain, 8s. 6d. ; Moulded, 9s. 6d. Cills, 10s. 0d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£28 0	3 × 6	£21 0
4 × 9	25 0	3 × 11	25 0
4 × 8	24 0	2 × 11	25 0
4 × 7	23 0	3 × 9	24 0
3 × 8	21 0	2½ × 9	23 0
3 × 7	20 0	3 × 4½	22 0
2½ × 7	20 0	3 × 4	22 0

PLANED BOARDS.

1 × 11	£27 0	1 × 9	£26 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	20/-	1¼	31/-
⅞	22/-	1½	34/-
1	25/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.	Inches.	per sq.
1	25/-	⅝	16/6
1¼	31/-	¾	19/-
1½	34/-	1	24/-

MATCHING (BEST).

BATTENS.

Inches.	s. d.
¾ × 2	2 6 per 100 ft.

SAWN LATHS.

Per bundle	0 2 4

1" AND UP THICK.

	£ s. d.		£ s. d.
Dry Austrian Wainscoat, per ft. cube	0 16 0	to	0 18 0
Dry American and/or Japanese Figured Oak, ft. cube	0 15 0	to	—
Dry American and/or Japanese Plain Oak, ft. cube	0 11 0	to	0 13 0
Dry sq. edged Honduras Mahogany, ft. cube	0 16 0	to	0 18 0
Dry Log cut Honduras Mahogany, ft. cube	0 18 0	to	1 1 0
Dry Cuba Mahogany, ft. cube	1 4 0	to	1 10 0
Dry Teak, ft. cube	0 13 0	to	0 15 0
Dry American Whitewood, ft. cube	0 11 0	to	0 14 0
Best Scotch glue, per cwt.	4 10 0	to	—
Liquid Glue, per cwt.	4 7 0	to	5 10 0

SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000.

	£ s. d.		£ s. d.
24 by 12	32 18 4	18 by 10	18 12 11
22 by 12	29 17 11	18 by 9	16 9 2
22 by 11	27 14 2	16 by 10	15 12 6
20 by 12	26 5 0	16 by 8	12 3 9
20 by 10	22 10 0		

TILES.

Delivered at London rate stations in full truckloads of not less than 4 tons. Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 12 6
ditto hand-made ditto	5 17 6
Ornamental ditto	6 2 6
Hip and valley tiles (per dozen) Hand-made	0 9 6
Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

	£ s. d.
R.S. Joists, cut and fitted	12 10 0
Plain Compound Girders	14 10 0
,, ,, Stanchions	16 10 0
In Roof Work	19 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	12 0 0	⅜ in. to ½ in.	10 15 0
⅝ in.	11 0 0	⅝ in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Tubes.	Fittings Over ½"	Flanges Over ½"
Black Gas	67½ %	45 %	55 %
Galvanised Gas	52½ %	35 %	45 %
Blue Water	62½ %	40 %	50 %
Galvanised Water	46½ %	30 %	40 %
Red Steam	57½ %	35 %	45 %
Galvanised Steam	40 %	25 %	35 %

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/3½	11½d.	3½d.
3½ in.	1/4½	1/1½	3½d.
4 in.	1/6	1/3	3½d.
4½ in.	1/7½	1/4½	4½d.
5 in.	1/10½	1/6½	5½d.

O.G. GUTTERS.

3 in.	1/8	1/4½	3½d.
3½ in.	1/8	1/4½	3½d.
4 in.	1/9½	1/4½	3½d.
4½ in.	1/11½	1/7½	4½d.
5 in.	2/4½	1/10½	5½d.

RAIN-WATER PIPES, &c.

per yd. in 6 fts.	Pipe.	Bends, angles.	stock Branches. stock angles
2 in. plain	1/10½	1/3	1/9½
2½ in. ,,	2/0½	1/4½	2/1½
3 in. ,,	2/6	1/9	2/7½
3½ in. ,,	2/11½	2/0½	3/0½
4 in. ,,	3/5	2/6½	3/8½

L.C.C. COATED SOIL PIPES—London Prices, ex Works.

	Pipe.	Bends, stock Branches. angles.	stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts. plain	3 3	2 4½	2 10
2½ in. ,,	3 9	2 7½	3 7
3 in. ,,	4 6	2 10	4 2½
3½ in. ,,	4 11½	3 7	4 11½
4 in. ,,	5 5½	4 0½	5 9

L.C.C. COATED DRAIN PIPES—London Prices ex Works.

	Pipe.	Bends, stock Branches, angles.	stock angles
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 4	5 1	8 0½
4 in. ,, ,,	6 2	5 8	10 0
5 in. ,, ,,	7 2	10 10	17 1
6 in. ,, ,,	8 6	13 2	21 9

Gasken for jointing, 38/6 per cwt.

	Per ton in London. £ s. d.		£ s. d.
IRON—			
Common bars	13 0 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 5 0	to	15 5 0
Staffordshire Marked Bars	16 5 0	...	17 5 0
Mild Steel Bars	10 0 0	...	11 0 0
Steel Bars, Ferro-Concrete quality, basis price	10 0 0	...	11 0 0
Hoop iron, basis price	12 0 0	...	13 0 0
,, Galvanised	27 0 0	...	28 0 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	13 5 0	...	14 5 0
,, ,, ,, 24 g.	14 5 0	...	15 5 0
,, ,, ,, 26 g.	16 5 0	...	17 5 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20g.	15 10 0	...	16 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	16 10 0	...	17 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	18 10 0	...	20 10 0
No. 1 quality £4 per ton extra.			
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	18 0 0	...	19 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	18 10 0	...	19 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	21 10 0	...	22 10 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	22 0 0	...	23 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 0 0	...	26 0 0
Best Soft Steel Sheets, 26 g.	25 10 0	...	26 10 0
Cut Nails, 3 in. to 6 in.	19 0 0		

(Under 3 in. usual trade extras.)

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	33 10 0
Pipe in coils	34 0 0
Soil Pipe	37 0 0
Compo Pipe	38 0 0

NOTE—Country delivery, 20s. per ton extra ; lots under 3 cwt., 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Oil lead, ex London area, at Mills ..... per ton 24 10 0

COPPER.

	s d.
Seamless Copper tubes (basis) ..... per lb.	1 0½
Strong sheet ,,	1 0
Thin ,,	1 1
Copper nails ,,	2 3
Copper wire ,,	2 4

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	
29/-	45/-	76/-	153/-	246/-	510/-	per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	
41/6	62/-	92/-	174/-	300/-	588/-	per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.	
39/6	60/-	116/6	per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.	
7/6	10/-	14/-	23/-	30/-	42/-	per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	
7/6	11/-	17/-	29/-	36/-	63/-	per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.	
10/-	12/-	20/-	24/-	31/-	per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	
35/-	56/-	98/-	162/-	228/-	per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

1¼ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- ,,

TIN—English Ingots, 3/1 per lb. SOLDER—Plumber's 1/4, Tinmen's 1/8, Blowpipe 1/8 per lb.

PAINTS, &c.

Raw Linseed Oil, in pipes	per gallon	0	2	11
,, ,, ,, in barrels	,,	0	3	1
,, ,, ,, in drums	,,	0	3	3
Boiled ,, ,, in barrels	,,	0	3	3
,, ,, ,, in drums	,,	0	3	6
Turpentine in barrels	,,	0	4	2
,, in drums (10 gall.) ...	,,	0	4	4
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)		48	0	0

GENUINE WHITE LEAD PAINT—"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco," "J." Brand and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered 67 10 0

Red Lead, Dry (packages extra) ...	per ton	39	10 0
Best Linseed Oil Putty	per cwt.	0	15 0
Filicol	,,	0	15 6
Size. XD quality	ftkn.	0	3 6

Continued on next page.

*The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd*).

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per ft.		Per ft.
15 oz. fourths.....	2½d.	32 oz. fourths.....	6½d.
15 „ thirds	3½d.	32 „ thirds	9½d.
21 „ fourths.....	4d.	Obscured Sheet,15 oz.	3½d.
21 „ thirds	4½d.	„ „ 21 „	4½d.
26 „ fourths.....	4½d.	Fluted 15 oz. 6½d.,21 oz. 9d	
26 „ thirds	6½d.	En'lled 15 oz. 4½d., 21oz.6½d	

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4½d.
3/16 Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic Stippolyte, and small and large Flemish White	6½d.
Ditto, tinted	9½d.
Rolled Sheet	5½d.
Rolled Sheet	5½d.
White Rolled Cathedral	5½d.
Tinted Do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per Gallon; £	s.	d
Oak Varnish.....	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Copal Carriage	ditto	1	4	0
Best ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	18	0
Fine Copal Cabinet	ditto	1	2	6
Fine Copal Flatting	ditto	1	0	6
Hard Drying Oak	ditto	0	18	0
Fine Hard Drying Oak	ditto	0	19	0
Fine Copal Varnish.....	ditto	1	0	0
Pale ditto	ditto	1	2	0
Best ditto	ditto	1	12	0
Best Japan Gold Size		0	12	6
Best Black Japan		0	10	6
Oak and Mahogany Stain (water)		0	12	0
Brunswick Black.....		0	7	6
Berlin Black.....		0	14	6
Knotting (patent)		1	5	0
French and Brush Polish		0	17	0
Liquid Dryers in Terebine.....		0	9	0
Cuirass Black Enamel		0	7	0

TRANSPORT AND HOUSING IN LONDON

The following statement has been issued by the Council of the Garden Cities and Town-Planning Association dealing with the proposed Government contribution towards the improvement of the London bridges:—

"Why are the bridge improvements wanted? Because of the vast increase in London's internal traffic. London is still spreading in all directions as a solid unbroken urban mass. Its suburbs are added in continuous rings. Its central buildings are getting loftier and more crowded. Longer and longer daily journeys and increasing discomforts are forced upon its working population. All this is universally deplored. The cost is mounting. The inconveniences to London industry are becoming intolerable. The waste of time and loss of leisure is appalling. The divorce of the people still living in the centre from playing-fields and the life of the country is more and more complete and disastrous.

"It is urgently necessary that a new policy shall be devised—a policy of decentralization of industry and commerce into properly planned and organised towns on the Letchworth and Welwyn model, and a housing policy which will relieve instead of intensify internal traffic. We desire to point out, therefore, that if decentralisation of industry, as best carried out in garden cities, had been adopted during the last decade, many of the transport problems would not to-day have arisen. Further, if this policy is adopted for the future, very considerable relief will be given to the problems of congestion, housing, and transport in London. The money which it is proposed should be spent on the improvement of cross-river traffic is a palliative and not a cure, and if the policy advocated by the Association is not scientifically pursued, more money still will have to be spent on the development of London, and the expenditure under this heading will be constantly recurring."

THE SCOTTISH BUILDER

NEW BUILDINGS IN SCOTLAND

Glasgow.—Houses.—The Dean of Guild Court has granted a lining for the erection of houses at Fingask-street, Shettleston, for the Corporation, and Messrs. John Adam & Co., Crossmyloof, for twelve terraced houses and two villas at Kilangowan-road and Mannering-road; and the Corporation Electricity Department were also given permission to erect a sub-station at Kirk-street, Calton.

Dunfermline.—Church.—The Dunfermline Presbytery have approved plans for a new church at Rosyth to accommodate 440 people, and the estimated cost is £6,200.

Rothesay.—Bandstand.—A special Committee of the Town Council is further considering the question of the erection of a bandstand for the Royal Rothesay Silver Band.

Edinburgh.—Improvements.—The Dean of Guild Court has granted warrant for the erection of five bungalows at Boswell-crescent, Wardie; two houses at Denham Green-terrace; and for alterations at the Empire Palace Theatre for the Moss Empires, Ltd.

Falkirk.—Garage.—Mr. D. Haston, of Cow Wynd, has been granted a warrant by the Dean of Guild Court to erect a large garage on the main Glasgow-Edinburgh road, near Belmont Lodge.

Glasgow.—Houses.—The Corporation has approved the housing schemes which are estimated to cost over £1,000,000. One of the schemes provides for the erection of 1,000 houses of a patent system of construction, with a large proportion of the houses having flat roofs. The preparation of a housing site at High Carntyne, on the new Glasgow-Edinburgh-road, was authorised.

Nairn.—Houses.—In connection with the housing scheme, another four blocks of four houses each are to be erected at Lochloy-road, at an estimated cost of £1,204.

Clarkston. — Offices. — The Renfrewshire Standing Joint Committee are considering the question of building a police office in Clarkston.

Dundee.—Buildings.—Following proposed new buildings, etc., have been lodged at the Office of the City Engineer:—Barrack-road—Maternity Hospital for Directors of Dundee Royal Infirmary, architects, Messrs. Johnston & Baxter, 31, Albert-square; Gilburn-road—sub-station for the Corporation Electricity Department: High-street and Gibb's-lane, Lochee—school for the Rt. Rev. Bishop Toner, architects, Messrs. Allan & Friskin, 26, Castle-street; Speed-street—sub-station for the Corporation.

Tranent.—School.—New infants' school is to be built at a cost of £15,474.

Dunbar.—Additions.—A sum of £6,812 is to be spent on additions to the Secondary School.

Dundee.—Factory.—A new linoleum factory is to be erected in Clepington-road. The promoters of the scheme are the North British Linoleum Co.

Glasgow. — Extension. — The Glasgow Parish Council has approved the estimates for the erection of a medico-electrical department at Stobhill Hospital at a cost of over £20,400.

Dundee.—Extension.—Extensions to the verandahs of Westgreen Hospital, which are estimated to cost £1,300, have been agreed by the House Committee of Dundee District Board of Control.

Epstein's Bust of Mr. MacDonald.

The Glasgow Corporation have unanimously decided to purchase the Epstein bust of Mr. MacDonald for £200. The bust is now on view in the Kelvingrove Art Galleries.

Obituary.

The death has occurred at his home, Rose Cottage, Callander, of Mr. James Ferguson, master builder. Mr. Ferguson was 63 years of age.

BUILDING TRADE WAGES IN SCOTLAND.*

The following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers. +	Carpenters, Joiners.	Plasterers.	Slaters.	bers.	Painters.	Labourers—Masons', Bricklayers', Plasterers'.
Aberdeen	1/8	1/8½	1/8	1/8	1/8	1/8	1/7	10½d. to 1/1
Airdrie.....	1/8	1/8	1/8	1/8	1/8	—	1/6½	1/3
Alexandria	1/8	1/8	1/8	1/8	1/8	1/8	—	1/2½ to 1/3½
Arbroath.....	1/7	1/7	1/7	1/7½	1/7	1/7	1/5½	1/1½
Ayr	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3
Bathgate.....	1/8	1/8	1/8	1/8½	1/8	1/8	1/6½	1/2 to 1/3
Blairgowrie.....	1/7	1/7	1/7	1/7½	1/5	1/7	1/4	10d. to 1/-
Bo'ness	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3
Coatbridge	1/8	1/8	1/8	1/8	1/8	—	1/6½	1/3 to 1/3½
Dumbarton.....	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Dumfries.....	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dundee	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3
Dunfermline	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Edinburgh	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Falkirk	1/7½	1/7½	1/7	1/8	1/7	1/7	1/6½	1/2½
Fort William	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Galashiels	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Glasgow	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Greenock.....	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/0½ to 1/3½
Hamilton	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½
Hawick	1/7	1/7	1/7	1/7-1/7½	1/7	1/7	1/7	1/2½
Helensburgh	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/3½
Inverness	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/- to 1/2
Kilmarnock	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Kirkcaldy	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Kirkwall	1/5	1/5	1/4	1/5	1/5	1/4	1/4	1/-
Lanark	1/8	1/8	1/8	1/9	1/8	1/8	1/6	1/0 to 1/1
Leith	1/8	1/8	1/8	1/8	1/8	1/8	1/8	1/3½
Motherwell	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3½
Perth	1/8	1/8	1/8	1/9	1/8	1/8	1/6½	1/3
Stirling	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Stirlingshire (Eastern District)	1/8-1/10	1/8-1/10	1/8	1/9	1/7	1/8	1/6½	1/3½
Wishaw	1/8	1/8	1/8	1/9	1/8	1/8	1/7	1/3½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 748.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—8 ft deep	per yard cube	11	0
Add if in clay	,, ,,	1	0
Add for every additional depth of 6 ft.	,, ,,	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	,, ,,	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	38	0
Add if in underpinning in short lengths	,, ,,	7	0
Add if in floors 6 in. thick	,, ,,	3	3
Add if in beams	,, ,,	3	9
Add if aggregate 1 : 2 : 4	,, ,,	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	,, ,,	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	32	0	0
Add if in stocks	,,	7	10	0
Add if in Staffordshire blues	,,	22	0	0
Add if in Portland cement and sand	,,	1	10	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	,, ,,	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	,, ,,	0	0	10
Axed in stocks	,, ,,	0	1	9
Rubbed and gauged jointed in putty camber or segmental	,, ,,	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	,, ,,	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	,,	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	,, ,,	9	6
Three-quarter-inch on flats in two thicknesses	,, ,,	6	3
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	,, ,,	1	2

MASON.

York stone templates fixed	per foot cube	13	0
York stone sills fixed	,, ,,	22	0
Bath stone and all labour fixed	,, ,,	10	6
Portland stone fixed	,, ,,	20	0

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	,,	80	9
Do. 24 in. × 12 in. Do. Do.	,,	90	0

CARPENTER AND JOINER

Fir framed in plates	per foot cube	5	0	
Do. joists	,, ,,	5	6	
Do. roofs, floors and partitions	,, ,,	6	0	
Do. trusses	,, ,,	8	6	
		¾″	1″	1¼″	2″
Deal rough close boarding	per sq.	35/6	40/-	45/-	72/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	,,	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	,,	1	6
Gutter boards and bearers	,,	1	0

FLOORING.

		¾″	1″	1¼″	1½″
Deal-edges shot	per sq.	—	44/6	53/-	60/6
Do. tongued and grooved	,,	—	49/-	57/6	65/-
Do. matchings	,,	45/-	51/-	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	,, ,,	2	1
Add for fitting and fixing	,, ,,	0	3
Deal-cased frames with 1 in. inner and outer linings, 1¼ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights; average size	,, ,,	3	9

DOORS.

		1¼″	1¾″	2″
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	,,	2/5	2/8	2/11
Two-panel moulded both sides	,,	2/8	2/11	3/2
Four-panel Do. Do.	,,	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1″	1¼″	1½″
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	,,	1/4	1/6	1/9
Add if cross-tongued	,,	2d.	2d.	2d.

STAIRCASES.

	1″	1¼″	1½″	2″	2½″
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail : average, 3 in. × 3 in.	,, ,,	6	0
Add if ramped	,, ,,	12	0
Add if wreathed	,, ,,	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	,,	19	0
Do. stanchions	,,	21	9
In roof work	,,	27	6

RAIN-WATER GOODS.

		3″	4″	5″	6″
Half-round plain rebated joints	ft run	1/6	1/9	2/-	2/6
Ogee Do. Do.	,,	1/9	2/-	2/6	3/3
Rain-water pipes with ears	,,	1/9	2/7	—	—
Extra for shoes and bends	each	4/4	5/11	—	—
Do. stopped ends	,,	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	,,	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	48	6
Do. Do. in flats	,,	47	6
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	,, ,,	1	6
Copper nailing	,, ,,	0	6

		½″	¾″	1″	1½″	2″	4″
Drawn lead waste	per ft. run	1/2	1/9	2/-	3/4	4/-	—
Do. service	,,	1/8	2/2	2/7	3/10	—	—
Do. soil	,,	—	—	—	—	—	6/9
Bends in lead pipe	each	—	—	—	—	3/3	8/2
Soldered stop ends	,,	1/2	1/8	2/1	2/10	3/6	—
Red lead joints	,,	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	,,	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	,,	—	—	—	14/7	19/6	—
Bib cocks and joints	,,	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints	,,	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	6
Do. Do. Sirapite	,, ,,	2	9
Do. Do. Keen's	,, ,,	4	0
Add saw lathing	,, ,,	1	7
Add metal lathing	,, ,,	2	6
(Not including hangers or runners, &c., for suspended ceilings.)			
Portland cement screed	,, ,,	2	2
Do. plain face	,, ,,	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	8½
26-oz. Do.	,, ,,	1	0
Obscured sheet	,, ,,	1	1
⅛-in. rolled plate	,, ,,	0	9
¼-in. rough rolled or cast plate	,, ,,	0	10½
¼-in. wired cast plate	,, ,,	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	,, ,,	0	7
Plain painting, 1 coat	,, ,,	0	9
Do. 2 coats	,, ,,	1	2
Do. 3 coats	,, ,,	1	9
Do. 4 coats	,, ,,	2	4
Graining	,, ,,	2	3
Varnishing twice	,, ,,	1	9
Sizing	,, ,,	0	3
Flatting	,, ,,	0	7
Enamel	,, ,,	1	1
Wax polishing	per foot sup.	0	6
French polishing	,, ,,	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1¼ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him next week not later than Monday evening.

* Denotes *accepted.*

† Denotes *provisionally accepted.*

‡ Denotes *recommended for acceptance.*

§ Denotes *accepted subject to modifications.*

ABERGELE.—Converting the town hall into a cinema theatre. Messrs. Birch & Grag, architects Colwyn Bay.

*W. H. Jones & Son, Abergele.

ABINGDON.—20 non-parlour-type houses on the Council's Boxhill housing estate, for the T.C. Borough Surveyor, Abbey House :—

Building & Public Works Construction Co., Swindon (20 houses)†	£6,980
A. Cox & Sons, Abingdon (20 houses)	7,180
J. Buckle & Sons, Abingdon (20 houses)	7,330
Sadler & Co., Acton (20 houses)	7,336
G. Holloway, Abingdon (20 houses)	8,190
Belcher, Abingdon (four houses)	1,660
(eight houses)	3,312
P. A. & G. Randall, Abingdon (four houses)	1,680
G. R. Williams & Co., Twyford (four houses)	2,012
(8 houses)	3,870
(12 houses)	5,652
(16 houses)	7,025
(20 houses)	8,045

ABINGDON.—26 non-parlour-type houses on the Council's Boxhill housing estate, for the T.C. Borough Surveyor :—

C. Oakley, Abingdon	£335 each
	339
Hoskings Bros., Newbury	392
	425
Harry Neal, Ltd., Northwood	357
	364
J. Buckle & Sons, Abingdon	370
Sadler & Co., Willesden	333
	360
A. Cox & Sons, Abingdon	364
	370
P. A. & G. Randall, Abingdon	375
	390

ASHLEY-DE-LA-ZOUCH.—Domestic science centre, for the Leicestershire C.C. Architect, County Education Offices, Grey Friar, Leicester:—

T. W. Bilson, Leicester	£1,138 16 10
Orton & Co., Coalville	1,124 2 3
Griffin Brothers, Hugglescote	1,120 0 0
W. Moss & Son, Coalville	1,110 0 0
T. Orton & Son, Ashby-de-la-Zouch	1,049 18 0
Levi Buxton, Ilkeston	975 10 0
*Francis C. Jones, Swadlincote	968 0 0

BARTON.—Eight houses, in pairs, for the Luton R.D.C. Mr. H. Pickering, architect, 73, West-parade, Dunstable :—

Buckingham & Long, Luton	£4,052
H. Mead, Luton	3,434
H. Lacey & Sons, Luton	3,320
A. & E. Fensome, Leagrave	3,028
H. Branton, Dunstable	2,978
†Luton Building Co., Luton	2,920

BASINGSTOKE.—126 houses at Hackwood-road, Basingstoke, and also for the laying out and construction of streets and appurtenant works, for the T.C. Mr. J. H. Drew, Borough Surveyor and Housing Architect :—

Mussellwhite & Son, Basingstoke	£77,498
Goodall & Son, Basingstoke	75,439
Hoskings Bros., Newbury	70,158
Building & Public Works Construction Co., Ltd., Swindon	68,630
Perrys, Ltd., Ealing	66,454
Harry Neal, Ltd., Northwood	64,436
E. H. White & Sons, Eastleigh	61,677
*A. A. Moynihan, Theale, Berks	57,047
Mrs. Tigwell, Basingstoke (only 25 non-parlour houses)	12,940

BEDFORD.—Temporary buildings at the new stores depot, for the T.C. :—

*J. T. Hobson & Co.	£328 10 0

BEESTON (Yorks).—32 houses, at Firth-grove, Theodore-street and Firth-avenue.

*J. Pullan & Sons.

BEESTON (Yorks).—For (*a*) 22 houses at Marsden-avenue; and (*b*) 6 houses and shops at Parkly-road;

*(*a*) E. Todd.
*(*b*) J. Roddy & Sons.

BRAINTREE.—Houses for the U.D.C. :—

Hatfield Peverel—12, *Sayer	£4,560
Terling—8, *Smith & Sons	3,008
Pattiswick—4, *Birkin	1,534
Rivenhall End—12, *Sayer (completed in six months).	4,470
White Notley—4, *Collins	1,500
Panfield—4, *Tanner	1,538

BRAMLEY.—Shops and garages for Messrs. F. Mitchell & Sons.

*Wood Bros. (Leeds), Ltd.

BRAMLEY.—12 houses at Lincroft estate, Swinnow-lane.

*J. W. Dufton & Sons.

CAMBORNE.—50 houses, for the U.D.C. Mr. E. S. Haslett, architect and surveyor :—

*F. Mitchell & Sons, Camborne	£20,000

CARHARRACK.—Bungalow for Mr. G. Gillard, The Old Post Office, Carharrack, Truro. Mr. L. Winn, L.R.I.B.A., chartered architect, Truro :—

*J. T. Collins, Perranwell.

CATERHAM.—Sanitary alterations, cleaning and painting, etc., at the Mental Hospital, for the M.A.B.

J. B. Edwards & Co., Whyteleafe	£11,378 14 6
Burnard & Pickett, Ltd., Wallingford	11,158 0 0
Norris & Co. (Builders), Ltd., Sunningdale	10,750 0 0
J. Crewdson, Horley	10,750 0 0
E. Proctor & Sons, London	10,600 0 0
F. Kinnaird & Co., London	10,510 0 0
J. Hocking & Co.	10,199 0 0
‡L. Kazak	9,600 0 0

CHAPELTOWN.—18 houses at Stainbeck-road.

*Mark Bristow & Son.

CHELTENHAM.—For 61 non-parlour, 3 bedrooms, and 20 non-parlour, two bedroom houseson land adjoining Hanover-street, for the T.C. Mr. T. Malvern, L.R.I.B.A., architect, 21, Winchcombe-street.

J. H. Monks, Newport	£40,767 10 0
W. T. Nicholls, Ltd., Gloucester	36,890 0 0
E. Miles & Son, Coleford	36,731 17 0
W. J. B. Halls, Ltd., Gloucester	35,564 0 0
Morgan Bros., Ltd., Birmingham	35,547 7 6
A. C. Billings & Sons, Ltd., Cheltenham	35,290 0 0
W. Drew, Cheltenham	34,310 0 0
The Building and Public Works Construction Co., Ltd., Swindon	34,159 0 0
Clarke & Tickner, Barry	33,200 0 0
Thornton Hall & Co., Bristol	33,060 0 0
E. Walters & Son, Bristol	32,950 0 0
*Reynolds, Harries & Co., Cardiff	31,900 0 0

CHESTER.—Extensions to the Administration Block at the Isolation Hospital for the City Council. City Surveyor.

*T. G. Huxley & Co. Chester £3,518

CHORLEY.—Alterations to the White Bear Hotel for the proprietors. Messrs. Buckley and Catterall, architects.

*L. Fairclough, Ltd., Adlington.

CHURCH.—For club house in Market-street, for the Conservative Association. Messrs Pollard & Pollard, architects, Accrington.

*D. Grimshaw, Accrington.

COLNE.—Church at the junction of Cragg-street and Spring-lane, for the National Spiritualist Church.

*Colne & District Co-operative Society, Ltd., £1,200.

DARENTH.—Repairs and renewals to floor of the ecreation hall, at the Training Colony, for the M.A.B.

C. H. Boyd & Son, London	£572
‡E. Proctor & Sons, London	500

DENBIGH.—10 dwellings on the Myddelton-avenue site, for the T.C. Mr. M. E. Morris, sanitary inspector :

*H. Lloyd Jones, Denbigh £4,170

DONCASTER.—Shelter, also public lavatories in Beckett-road, for the T.C. Mr. F. O. Kirby, Borough Engineer, 2, Priory-place. Quantities by the Borough Engineer :—

*G. T. Farrow, Doncaster £918 0 3

DONCASTER.—Bus stand and lavatories for the T.C.

*Johnson & Moore.

DURHAM.—Primitive Methodist Church at Broom for the trustees. Mr. T. W. Richardson, architect, Stockton-on-Tees.

*G. Lazenby & Sons, Ferryhill.

EAST HORSLEY.—Detached residence on the Norreis Lodge estate, for Mr. J. Lamb. Mr. R. Lano Pearce, architect, 25, Bedford-row, W.C.1. :—

*Callow & Wright, Ltd. £3,000

EDMONTON.—Casual Wards for the B.G.

*A. Monk, Edmonton £17,200

GLASLYN.—Reservoir and provision and laying of about 4,460 yds. of 4 in., 3 in., 2½ in. and 2 in. cast-iron mains, together with the necessary sluice valves, hydrants, &c., for the R.D.C. Messrs. Berrington & Son, engineers, Prudential Chambers, Lichfield-street, Wolverhampton:—

W. H. Rogers, Willenhall	£10,458 7 5
Geo. N. Farley, Pontardulais	10,453 13 6
Martin & Element, Ltd., Smethwick	8,072 14 6
H. Sherwin Gill, Chesterfield	7,474 8 10
Arthur Seaton, Pontypridd	7,028 14 6
Wyatt Brothers, Whitchurch, Salop	6,607 1 3
Thomas Bugbird & Son, Scarborough	6,500 0 0
S. F. Hopley, Prestatyn	5,900 0 0
H. Middleton, Liss	5,679 16 0
G. & J. P. Gregory, Carnarvon	5,679 5 9
Whitley Bros., Wrexham	5,142 13 4
Evan Davies & Son, Trawsfynydd *F. E. Jones, Portmadoc	4,770 18 2

GRIMSBY.—Repairs to long shelter at the Grant Thorold-park, for the C.B. :—

*J. Borrill, Grimsby £124

GRIMSBY.—Extensions to the tennis pavilion at the Barrett Recreation ground, for the C.B. :—

*H. & C. Thompson, Grimsby £316

HALLAND, Sussex.—Private residence. Mr. F. D. Baker, architect :—

*The Ringmer Building Works.

HANWORTH.—Four houses, for the Staines R.D.C

W. Gray, Heston (per house)	£536
Chas. Banks, Feltham	2,088
S. Skee, Woking	1,998
W. T. Hill, Feltham	1,985
W. J. Drinkwater & Son, Feltham	1,832
*Feltham Hill Road Building Construction Co.	1,827

HOLBEACH.—Structural alterations at the Chequers Hotel. Mr. F. B. Ward, L.R.I.B.A., architect, 8, Southbrink, Wisbech. Quantities by the architect :—

J. Youngs & Son, Ltd., Norwich	£1,481 0 0
J. Guttridge & Sons, Peterborough	1,387 0 0
*Langley & Son, Ltd., Boston	1,146 16 0

HOLL. —Filters at the reservoir, and for providing and laying the cast-iron pipes in connection, for the Kirkcaldy and Dysart Water Works. Messrs. J. & A. Leslie & Reid, civil engineers, 72A, George-street. Edinburgh :—

*J. Ritchie, Dunfermline £17,565 4 1

HOLYHEAD.—Improvements to engineering services for the Institution at Valley, for the B.G. Mr. H. Kilshaw, engineer, Waterloo, Liverpool :—

Ashwell & Nesbitt, Manchester	£3,864
Newton Chambers & Co., Manchester	3,324
Killick & Cochran, Liverpool	3,255
William Griffiths Sons & Cromwell, Ltd., Liverpool	3,217
John King, Ltd., Liverpool	3 209
G. N. Haden & Sons, Ltd., Manchester	3,081
*The Brightside Foundry & Engineering Co., Ltd., Liverpool	3,065

KIRKCALDY.—Painter's work at the electric generating station in Victoria-road, for the T.C. Burgh Surveyor, 10, Tolbooth-street. Quantities by the Burgh Surveyor:—

*J. C. Rolland, Buckhaven £456 18 4

KIRKCALDY.—Additions and alterations to Administration block at Free Hospital, for the T.C. Burgh Surveyor, 10, Tolbooth-street.

Excavator, mason and Bricklayer—	
*D. Wilkie	£633 17 8
Carpenter and joiner work—	
*H. Carmichael	491 15 10
Plumber work—	
*J. Blyth	155 16 6
Slater work—	
*W. Currie	110 5 10
Plaster and cement—	
*D. Wright and Sons	169 13 7

(All of Kirkcaldy.

LIVERPOOL.—School chapel for the parishioners of St. Cuthbert's Stanley. Mr. A. Gilbertson, architect, Tithebarn-street.

*John Williams & Sons (Liverpool), Ltd

LIVERPOOL.—Additions to buildings at New Hall-lane Council school, for the T.C. Mr. A. D. Jenkins, land steward and surveyor. Quantities by Mr. E. L. Hoose, 10, Dale-street :—

*Rimmer Bros., Liverpool.

LONG EATON.—38 houses in College-street, for the U.D.C. Mr. H. Raven, surveyor. Quantities by the surveyor :—

*E. E. Stevens, Long Eaton (20 houses)	£9,410
*J. E. Jervis Ltd., Long Eaton, (18 houses)	8,830

LONDON.—External repairs and decorative works at the Paddington Recreation-ground Pavilion, for the Paddington B.C.

*W. Gibbin & Son £168

LONDON.—Tuberculosis dispensary, for the Deptford B.C. Mr. H. Morley Lawson, Borough Surveyor :

H. L. Holloway & Son	£6,070
Edwards Construction Co., Ltd.	5,960
G. B. Farrar & Co.	5,775
Wm. Mills & Sons, Ltd.	5,489
T. D. Leng	5,324
*Burnand & Pickett, Ltd.	4,975

(All of London.)

LONDON.—Cleaning, painting and repairs, North-Western Hospital, for the M.A.B. :—

H. Thornton & Co.	£2,545 0 0
J. W. Buckingham & Sons	2,300 0 0
A. C. Mackinlay	1,983 5 0
C. H. Boyd & Son, Ltd.	1,772 0 0
Stevens & Sons, Ltd.	1,689 0 0
E. Proctor & Sons	1,520 0 0
M. Greenwood & Son, Ltd.	1,517 0 0
L. Kazak	1 510 0 0
‡J. Hocking & Co.	1,371 0 0

LONDON.—Cleaning, painting and repairs, at the Eastern Hospital, for the M.A.B.

A. C. Mackinlay	£3,946
R. G. J. Wollaston, Upminster	3,360
R. Woollaston & Co.	3,040
F. Frith, Shipley	2,867
C. H. Boyd & Son, Ltd.	2,642
W. Harris, Ltd.	2,393
E. Proctor & Sons	2,250
J. Hocking & Co.	2,127
M. Greenwood & Son, Ltd.	2,127
‡L. Kazak	2,044

(All of London).

LONDON.—Painting and repairs at the South Wharf, for the M.A.B.

Burnand & Pickett, Ltd	£499
L. Kazak	490
‡E. Proctor & Sons	485

(All of London).

LONDON.—Cleaning, painting and repairs, at the Woolwich Casual Ward, for the M.A.B.

Burnand & Pickett, Ltd., Wallington	£197 0
Edwards Construction Co., Ltd., London	180 0
P. Miller & Son, Dartford	153 0
Douglass, Haise & Co., Ltd., Woolwich	149 0
E. Proctor & Sons, Plumstead	145 0
W. Harris, Ltd., Woolwich	138 0
‡D. C. Bowyer, Belvedere	111 8

LONDON.—Internal cleaning and painting, at the Fountain Mental Hospital, for the M.A.B.

W. F. Goodchild, London	£1,487 0
B. Sparks & Co., London	1,102 0
F. Kinnaird & Co., Ltd., London	911 0
C. H. Boyd & Son, Ltd., London	792 0
F. Firth, Shipley	790 0
Burnand & Pickett, Ltd., Wallington	790 0
A. Black & Son, London	770 0
J. Crewdson, Horley	760 0
J. Hocking & Co., London	733 0
F. C. Inge, Swindon	655 0
E. Proctor & Sons, London	645 0
W. Harris, Ltd., London	623 0
‡A. Sutcliffe & Sons, Ltd., Bradford	571 10

LONDON.—Cleaning and painting, at the Brook Hospital, for the M.A.B.

Burnand & Pickett, Ltd., Wallington	£2,700 0 0
Douglass, Haise & Co., Ltd., London	2,310 0 0
M. Greenwood, & Son Ltd., London	2,199 0 0
Edward's Construction Co., Ltd., London	2,093 0 0
E. Proctor & Sons, London	1,998 0 0
A. Black & Son, London	1,920 0 0
T. Carrington & Co., Ltd., Beckenham	1,869 0 0
C. H. Boyd & Son, Ltd., London	1,772 0 0
W. Harris, Ltd., London	1,748 0 0
D. C. Bowyer, Belvedere	1,739 11 6
F. Firth, Shipley	1,724 0 0
‡P. Miller & Son, Dartford	1,718 0 0

LONDON.—Cleaning, painting and repairs, at the Lambeth Casual Ward, for the M.A.B.

J. Crewdson, Horley	£576 0
F. Firth, Shipley	527 0
W. Harris, Ltd., London	509 0
F. Kinnaird & Co., Ltd., London	505 0
Burnand & Pickett, Ltd., Wallington	499 0
M. Greenwood & Son, Ltd., London	498 10
C. H. Boyd & Son, Ltd., London	482 0
Douglass, Haire & Co., Ltd., London	470 0
E. Proctor & Sons, London	467 0
J. Hocking & Co., London	459 0
A. Sutcliffe & Sons, Ltd., Bradford	452 8
‡White & Johnson, London	450 0

LONDON.—Cleaning, painting and repairs, at the Paddington Casual Ward, for the M.A.B.

A. C. Mackinlay	£348 15 0
White & Johnson	340 0 0
J. W. Buckingham & Sons	295 0 0
H. Thornton & Co.	290 15 0
F. C. Inge, Swindon	257 0 0
F. Kinnaird & Co., Ltd.	249 15 5
Burnand & Pickett, Ltd., Wallington	202 0 0
W. Harris, Ltd.	200 0 0
J. Hocking & Co.	199 0 0
‡C. H. Boyd & Son, Ltd.	194 0 0

(All of London).

LONDON.—Cleaning and painting Sheffield-street hospital, for the M.A.B.

Whitbys, Ltd.	£356 12
J. Hocking & Co.	272 0
H. Bragg & Sons, Ltd.	267 0
C. H. Boyd & Son, Ltd.	248 0
†J. Darch, Ltd.	238 10

(All of London).

LUBBESTHORPE.—Senior Council school on the Park-estate, with accommodation for 1,040 children, for the Leicestershire E.C. Mr. E. G. Fowler, architect:—

Hardington, Elliott & Co., Leicester	£43,775 0 0
Wm. Corah & Son, Ltd., Loughborough	41,717 0 0
W. Haddon & Son, Leicester	40,460 0 0
J. Bentley & Co., Ltd., Leicester	40,436 0 0
J. C. Kellett & Son, Leicester	38,900 0 0
Orton & Co., Coalville	38,879 10 0
J. Chapman & Sons, Ltd., Leicester	38,877 0 0
Fred Doggett, Ltd., Leicester	38,789 9 3
Haskard MacGregor, Ltd., Leicester	38,637 0 0
Frederick Elliott, Leicester	38,499 0 0
Chitham & Co., Leicester	38,398 0 0
A. E. Robinson, Leicester	38,351 0 0
A. Russell, Hinckley	38,289 0 0
F. J. Bradford, Leicester	38,273 0 0
Peter Rourke, Lutterworth	38,271 0 0
*W. Potter, Narborough	37,350 0 0

MACCLESFIELD.—14 houses at Jack-lane, Woodford, for the R.D.C. Mr. G. Clayton, architect, stockport.

*Ogdens (Builders), Ltd., Stockport £4,900

MANSFIELD.—Conversion of the present stockroom into a lavatory and the provision of an additional stockroom, at the King Edward Infant's school for the T.C.:—

*A. Mason £132 10 0

MANSFIELD.—113 houses on the Ravensdale housing estate, for the T.C.:—

*R. Moore, Stockwell Gate.

MARKET HARBOROUGH.—36 houses, for the U.D.C.:—

*G. Jarman & Sons £12,320

MATLOCK.—Church at Litten, for the parochial authorities. Mr. W. H. R. Blackling, architect, Lady Mead, Guildford.

*J. W. Wildgoose & Sons, Matlock.

MEASHAM.—Reservoir at Measham, for Ashby-de-la-Zouch R.D.C. Messrs. W. H. Radford & Son, engineers, Nottingham.

*The Bridge & Engineering Co., Banbury £4,402

MENSTON.—Painting outside of several buildings at the Mental Hospital, for the West Riding C.C. Mr. W. E. H. Burton, architect and engineer, Wakefield:—

*W. H. Sykes, Batley £384

NANTWICH.—24 houses, for the R.D.C. Mr. H. C. Atkinson, clerk:—

*G. W. Platt, Crewe (14 houses)	£6,545 0 0
*G. Brookes, Tarporley (four houses)	1,954 13 10
*James Farnell, Whitchurch (six houses)	2,467 0 0

NEWARK.—Chapel and extensions to Kelham Hall Society of the Sacred Mission. Messrs. Curry & Thompson, architects, Market-place, Derby.

*W. Moss & Sons, Ltd., Loughboro'.

NEWCASTLE.—10 shops and houses on the Walker estate, for the Corporation. Mr. Roberts, architect, 34, Cloth Market.

*Gustaves & Bailey, Ltd., Newcastle.

NEWCASTLE.—Warehouse at the junction of Melbourne-street and Pandon Banks, for Messrs. Fordie & Co. Messrs. Cackett & Burns Dick, architects, Pilgrim-street.

*W. Hall, Gateshead.

NORTHFLEET.—52, houses for the U.D.C.

J. W. Ellingham, Dartford	£26,671
G. E. Wallis & Sons, Gravesend	33,393
J. Franklin, Erith	35,490
‡A. E. Blackwell, Erith	23,804
or £22,906 (if allowed an extension of time.)	
H. Hotter, Northfleet	32,445

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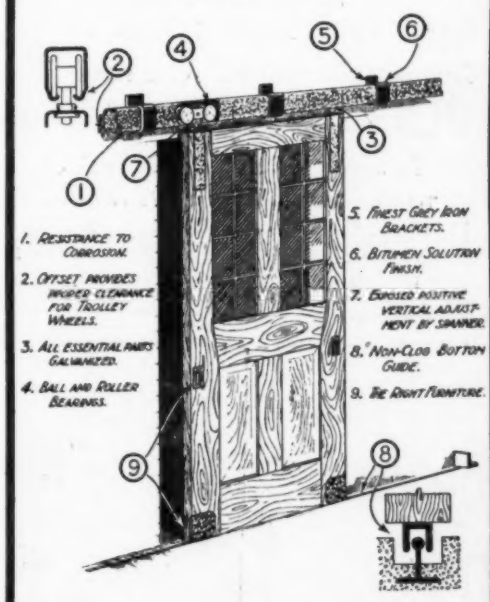
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NORTHWICH.—204 houses and 29 bungalows, on the Hartford Hill estate and Golf Links site, for Messrs. Brunner Mond & Co., Ltd.

114 houses—
*J. Gerrard & Sons, Ltd., Swinton.
16 houses and 29 bungalows—
*F. Whitehead, Northwich.
50 houses—
*W. E. Noden, Winsford.
24 houses—
*F. Whitehead, Northwich.

NORWICH.—Secondary school at Catton, for the T.C. Mr. C. J. Brown, engineer and surveyor, Cathedral Offices, Norwich. Quantities by the architect:—

J. Anderson & Son	£49,091
J. H. Blyth & Son	48,500
R. G. Carter	47,657
F. R. Hipperson	46,578
J. H. Yelf	43,762
W. J. Hannans	43,700
J. Youngs & Sons, Ltd.	42,794
*H. C. Greengrass	42,296

(All of Norwich:)

NORWICH.—New workshops, etc., for The Norwich Glass Co., Ltd., Wensum-street. Mr. J. Owen Bond, F.R.I.B.A., architect, 26, Tombland, Norwich:—

T. Gill & Son, Norwich	£3,037
R. G. Carter, Drayton	2,830
T. H. Yelf, Norwich	2,692
W. S. Lusher, Norwich	2,628
Scarles Bros., Norwich	2,593
*J. Youngs & Son, Ltd., Norwich	2,581

PORTSMOUTH.—Rebuilding of 220-222, Fratton-road in connection with City-road widening scheme, for Mr. J. Littlefield. Mr. A. E. Tutte, architect and surveyor, 42, Commercial-road, Portsmouth:—

*Lay & Co., Portsmouth.

PORTSMOUTH.—Residence, Kirby-road, for Mr. W. Avens. Mr. S. E. White, F.I.A.A., architect and surveyor, 73, Waverley-road, Southsea. Quantities by the Architects.

Jno. Croad, Portsea	£1,914 0 0
Builders Guild, Ltd., Portsmouth	1,741 3 8
John Lay & Co., Portsmouth	1,688 0 0
F. J. Privett, Southsea	1,625 0 0
H. E. Pitt, Portsmouth	1,625 0 0
Howe & Bishop, Southsea	1,586 0 0
A. E. Mansbridge, Portsmouth	1,565 0 0
*Tanner Bros., Southsea	1,522 0 0

PUDSEY:—Installation of electric lighting at the Richardshaw-lane Council school and Master's house, for the T.C.

*Higginbotham & Sons.

REDRUTH.—Lecture hall and additions to West Cornwall Miners and Women's Hospital. Mr. L. Winn, L.R.I.B.A., architect, Truro:—

W. T. Hart & Sons, Redruth.

ROTHERHAM.—Reconstruction of Chantry Bridge; for the C.B. Dep. £5. Mr. Vincent Turner, Borough Engineer. Quantities by Mr. Henry Vale, Wolverhampton:—

*Yorkshire Hennibique Contracting Co., Ltd. £58,600

ROTHERHAM.—For (a) two percolating filters, 36 ft. 6 in. diam., sludge drying beds, engine house and pump well, and alterations to existing works, and (b) conversions of 36 privies into water closets and 46 new water closets, at Harley, for the R.D.C. Mr. C. O. Rawstron, engineer and surveyor.

(a)

C. Unwin, Sheffield	£3,238 0 2
Melling Bros., Ltd., Sheffield	3,066 14 9
J. W. Halladay, Worksop	2,997 6 11
Squires & Sons, Selby	2,779 19 4
H. Beeden, Thrybergh	2,715 7 10
Trehearne, Rotherham	2,709 5 10
Swift Bros. & Haslam, Doncaster	2,537 0 0
Engineers' estimate	2,491 0 0
*Mollekin & Sons, Ltd., Maltby	2,466 0 0
H. Andrews, Sheffield	2,278 9 0

(b)

Plant, Sheffield	£2,749 2 4
Melling Brothers, Sheffield	2,089 9 8
Squires & Sons, Selby	1 913 15 10
Exley, Sheffield	1,832 6 4
Demaine, Catcliffe	1,793 5 10
H. Beeden, Thrybergh	1,731 10 10
W. H. Trehearne, Ltd., Rotherham	1,680 10 2
Blair, Rotherham	1,630 18 3
Engineer's estimate	1,601 8 8
Richardson, Rotherham	1,599 4 6
C. Boyd, Rotherham	1,575 2 8
Mollekin & Sons, Maltby	1,565 18 2
C. Unwin, Eccles field	1,564 10 8
Jacques, Rawmarsh	1,561 4 3
Mason & Quinch, Sheffield	1,556 7 6
Grant, Chapeltown	1,544 16 6
*Baldwin & Co., Rotherham	1,456 13 5
Hoyland, Hoyland	1,332 9 6

SHUTES.—6 houses for the Ottery St. Mary U.D.C.

*Luxton & Son (3 houses)	£1,565
*Paddon & Luxton (3 houses	£1,550

ST. GERMANS.—Chapel and Sunday school at Bethany, St. Germans, for the Wesleyan Reform Union. Mr. H. R. Venning, L.R.I.B.A., architect and surveyor, Midland Bank-chambers, Liskeard:—

Brock & Kressinger, Liskeard	£1,900
Runnalls & Sons, Liskeard	1,875
*J. E. Hambly & Sons, West Looe	1,400

SMETHWICK.—64 houses in Alexander-road, for the C.B.

*G. Stubbings, Birmingham	£408 each

SOUTHWELL.—Sewerage and sewage disposal for the parish of Bilsthorpe, for the R.D.C. Messrs. Sands & Walker, engineers, Milton Chambers, Nottingham.

Coxhead & Co., Ltd., Middlesbrough	£35,000	0	0
Sir Wm. Prescott & Sons, London	30,904	0	0
S. & G. Graham, Huddersfield	28,909	0	0
C. V. Buchan & Co., Brighton	27,333	0	0
Fletcher & Co., Mansfield	26,685	4	11
H. H. Barry, Radcliffe-on-Trent	26,000	0	0
F. Mitchell & Son, Ltd., Manchester	25,200	0	0
A. H. Price & Co., Nottingham	24,994	19	11
E. Somerfield & Sons, West Bridgford	24,916	6	2
Ward & Tetley, Bradford	23,990	0	0
Hussey, Egan & Pickmere, Birmingham	23,925	0	0
A. Eastwood & Sons, Warsop	23,500	0	0
C. S. Tomlinson, Alfreton	22,815	5	0
Lane Bros., Mansfield	22,687	17	0
Provincial Construction Co., *Kiveton Park	22,300	0	0

STORRINGTON.—Rebuilding of the local branch of Lloyds Bank. Mr. L. J. Redgrave Cripps, architect, Worthing.

W. Dean & Son, Storrington	£1,902
Snewin & Son, Worthing	1,764
*F. Sandell & Sons, Worthing	1,681

STOWMARKET.—20 houses on the Beech-place site, for the U.D.C. :—

*O. S. Seaman	£9,230

TIPTON.—16 houses in Park-lane, West Tipton, for the U.D.C. Mr. H. N. Woodward, surveyor:—

Farmer Bros., Birmingham	£6,336
T. Webb, Sedgley	6,240
Wm. Jones & Co., Tipton	6,140
—, Greensill, Bilston	6,000
T. Wilde, Bilston	6,000
Richard Smith & Co., Ltd., Walsall	5,648
*A. Edge & Sons, Bilston	5,376

TIVERTON.—For (*a*) 8 parlour and (*b*) 8 non-parlour type houses at Cullompton, for the R.D.C. Mr. R. Ellis, surveyor, 24, St. Peter-street.

Concrete blocks—

Parlour				
*Andrews & Devon.	Miller, Ufculme, (parlour)	£911	0	0
	(non-parlour)	800	0	0
Taylor & Sons, Cullompton	(parlour)	991	3	0
	(non-parlour)	957	16	0
Brick work—				
Andrews & Devon	Miller, Ufculme (parlour)	1,020	0	0
	(non-parlour)	870	0	0
Taylor & Sons, Cullompton	(parlour)	889	14	0
	(non-parlour)	866	3	0

TOTNES.—Re-roofing (1) new roofs and other work to nine cottages at Coldharbour, Bridgetown, Totnes; (2) re-roofing cottages, stables, etc., at True-street, Berry Pomeroy Totnes, for the Duke of Somerset. Mr. W. F. Tollit, architect, Bridgetown, Totnes :—

(1)	
Harris Bros., Exmouth	£1,135
T. Brook, Totnes	945
S. Batten, Paignton	717
*W. Reeves & Son, Totnes	648
(2)	
Harris Bros., Exmouth	£884 16 0
T. Brook, Totnes	825 0 0
S. Batten, Paignton	622 0 0
*W. Reeves & Son, Totnes	589 9 0

WATERLOO-WITH-SEAFORTH. — Gentlemen's public convenience in South-road, Waterloo, for the U.D.C. Mr. J. R. Fothergill, engineer and surveyor. Quantities by the engineer:—

Saml. Power & Son	£805 10 0
Tippin Bros.	802 0 0
Alexr. Taylor & Sons	766 10 0
Rd. Costain & Sons, Ltd.	765 0 0
Hollinghurst & Power	760 0 0
James Taylor & Sons	737 10 0
W. A. Gale	724 0 0
O. E. Roberts	716 0 0
*Parker Bros.	709 9 6

(All of Liverpool.)

WHELLEY.—Church. Messrs. Austin & Paley, architects, Castle-park, Lancaster :—

*Webster & Winstanley, Wigan.	

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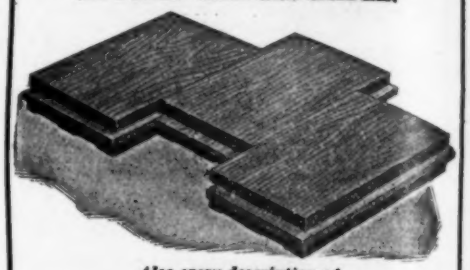

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